

LM, TS, MC, TL, GWA, ST, DA, DV, EM, ES, LD, SM, USB, RB, SC, TN, L, VN, AL, A, SP, VB

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Automotive Analog and Power

Overview

ST's automotive product portfolio provides you with the devices you need to build any automotive application, from powertrain and safety systems, to car body and infotainment solutions.

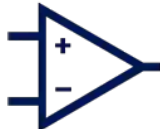
Our automotive products meet the specific and rigorous requirements of the automotive market. This is the result of continuous quality improvements gained through our close collaboration with the leading automotive suppliers and car makers.

A wide portfolio of analog, power and digital products, and complete system kit solutions, are two reasons to work with ST in the automotive market.

Automotive ADAS Devices



Automotive Comparators



Automotive Current Sensing



Automotive Op Amps



Automotive Power Discretes



Chassis & Safety ICs



Door Module Drivers



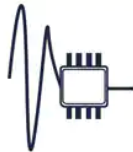
High/Low Side Switches



LED Drivers



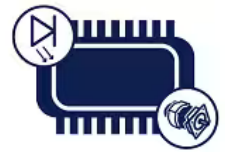
Linear Voltage Regulators



Motor Driver ICs



Multi-Output Driver ICs



Power Management SBC



Powertrain ICs for ICE/HEV/EV



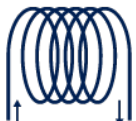
Single Output DC-DC Switching regulators



Transceivers



Valve Driver ICs



Automotive Comparators

Overview

Our automotive-grade comparator ICs meet the requirements of extreme reliability and quality demanded by this market. Supporting temperature ranges that can go up to 150°C, our automotive grade comparators offer:

- AEC-Q100 and Q101 compliance
- TS-16949 certification
- PPAP availability
- Compliance with AEC-Q001 and Q002 guidelines for Statistical Yield Analysis (SYA) and Part Average Testing (PAT) at EWS
- Specific screening and test methods above and beyond AEC-Q100 compliance, such as performance of a 100% hot test (125°C) during the back-end (packaging and testing) stage

Discover our comparator combining high-speed response time and micropower consumption

The TS3011 is a **single rail-to-rail high-speed comparator** available for automotive applications in a standard SC70-5 package.

Thanks to an excellent ratio of power consumption current versus response time, the TS3011 is suitable for **high-speed sampling systems, telematics (V2X), instrumentation, on-board chargers, and DC/DC converters**

Amplifiers and Comparators / Comparators/Automotive Comparators

Part Number	General Description		Grade	Number of Channels	Operating Temperature (°C) min	Operating Temperature (°C) max	Supply Current per Channel (µA) typ	Supply Voltage (V) min	Supply Voltage (V) max	Response Time (µs) (Small Signal) typ	Input Offset Voltage (mV) max	Rail to Rail Input	Output Configuration
LM2901	Low power quad voltage comparator	QFN-16L,SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	275	2	32	1.3	7	false	Open Collector
LM2901B	Automotive grade, low-power quad voltage comparator	QFN-16L,SO-14,TSSOP-14L	Automotive	4	-40	125	200	2	36	1	4	false	Open Collector
LM2901H	Low power quad voltage comparator	SO-14	Automotive	4	-40	150	275	2	36	1.3	7	false	Open Collector
LM2903	Low power dual voltage comparator	MiniSO-8,QFN-8L P 0.5 mm,QFN-8L WF,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	400	2	36	1.3	7	false	Open Collector
LM2903B	Low power dual voltage comparator	MiniSO-8,QFN-8L WF,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	400	2	36	1.3	5	false	Open Collector
LM2903H	Low power dual voltage comparator	SO-8,TSSOP-8L	Automotive	2	-40	150	400	2	36	1.3	7	false	Open Collector
LM2903W	Low power dual voltage comparator	MiniSO-8,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	400	2	36	1.3	7	false	Open Collector
LM2903WH	Low power dual voltage comparator	MiniSO-8	Automotive	2	-40	150	400	2	36	1.3	7	false	Open Collector
TS3011	Rail-to-rail high-speed comparator	QFN-8L WF,SC70-5,SOT23-5L	Automotive,Industrial	1	-40	125	470	2.2	5	0.008	7	true	Push Pull
TS3021	Rail-to-rail 1.8 V high-speed comparator	SC70-5,SOT23-5L	Automotive,Industrial	1	-40	125	73	1.8	5.5	0.038	6	true	Push Pull
TS3021H	Rail-to-rail 1.8 V high-speed comparator, 150°C extended temperature range	SOT23-5L	Automotive	1	-40	150	73	1.8	5.5	0.038	6	true	Push Pull
TS3022	Rail-to-Rail 1.8V High-Speed Micropower Comparators	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	73	1.8	5.5	0.038	6	true	Push Pull
TS331	Micropower low-voltage rail-to-rail comparator	QFN-6L P 0.4 mm,SC70-5,SOT23-5L	Automotive,Industrial	1	-40	125	20	1.6	5	0.2	5	true	Open Drain
TS332	Micropower low-voltage rail-to-rail comparator	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	20	1.6	5	0.2	5	true	Open Drain
TS334	Micropower low-voltage rail-to-rail comparator	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	20	1.6	5	0.2	5	true	Open Drain
TS391	Low power, single voltage comparator	QFN-8L P 0.5 mm,SOT23-5L	Automotive,Industrial	1	-40	125	200	2	34	1.3	5	false	Open Collector
TS393	Micropower CMOS dual voltage comparator	SO-8,TSSOP-8L	Automotive,Industrial	2	-40,0	125,70	9	2.7	16	1.5	5	false	Open Drain
TS882	Rail-to-rail 1.1 V nanower, push-pull dual comparators	MiniSO-8,QFN-8L P 0.5 mm	Automotive,Industrial	2	-40	125	0.21	1.1	5.5	2.6	6	true	Push Pull
TSX339	Micropower (5µA) 16V CMOS quad comparator, open drain output	QFN-16L,SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	5	2.7	16	0.9	5	false	Open Drain
TSX3702	Micropower dual CMOS voltage comparators	DFN-8L P 0.5 mm,MiniSO-8,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	5	2.7	16	2.5	5	false	Push Pull
TSX3704	Micropower (5µA) 16V quad CMOS comparator, push pull output	QFN-16L,SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	5	2.7	16	2.5	5	false	Push Pull
TSX393	Micropower dual CMOS voltage comparators	DFN-8L P 0.5 mm,MiniSO-8,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	5	2.7	16	0.9	5	false	Open Drain

Automotive Current Sensing

Overview

Current sensing is important in many automotive applications like motor control, battery management, power management, and many others. ST provides solutions for these applications based on operational amplifiers (op amps) and integrated current monitors for shunt current sensing. ST's portfolio of automotive grade current sensing ICs meets the requirements of extreme reliability and quality demanded by the market.

Applications:



Motor control



Battery management



Power management

Product types

Our are AEC-Q100 qualified and tested with certified high-reliability flow, to meet the requirements of extreme reliability and quality demands of the automotive market.

Discover our portfolio:

Unidirectional current monitors	TSC101A	TSC102	TSC103	
	TSC101B	TSSOP8 SO8 Operating 2.8 to 30V Gain x20 adj.	TSC1031	
	TSC101C	TSC1021	TSSOP8 SO8 Operating 2.9 to 70V AMR -16 to 75V Gain x50 x100	
	SOT23-5 Operating 2.8 to 30V Gain x20 x50 x100	TSSOP8 Operating 2.8 to 30V Gain x20 x50	TSC200	
			MiniSO8 SO8 Operating 2.7 to 18V Gain x20	
Bidirectional current monitors	TSC2010	TSC210	TSC214	
	TSC2011	TSC211	TSC215	
	TSC2012	TSC212	SC70-6 QFN10 Operating -0.3 to 26V Gain x100 x75 Vio max 60µV	SC70-6 QFN10 Operating -0.3 to 26V Gain x50 Bandwidth 100kHz Vio max 100µV
	MiniSO8 SO8 Operating -20 to 70V Bandwidth 600kHz Gain x20 x60 x100	SC70-6 QFN10 Operating -0.3 to 26V Gain x200 x500 x1000 Vio max 35µV		

 Extended temperature range (-40 to +150°C) available

Benefits:

- AEC-Q100 and Q101 compliance
- TS-16949 certification
- PPAP availability
- AEC-Q001 and Q002 guidelines for Statistical Yield Analysis (SYA) and Part Average Testing (PAT) at EWS
- Specific screening and test methods above and beyond AEC-Q100 compliance, such as performance of a 100% hot test (125°C) during the back-end (packaging and testing) stage.

Automotive Analog and Power/Automotive Current Sensing

Part Number	General Description	Package	Grade	Operating Temperature (°C) min	Operating Temperature (°C) max	Supply Current (µA) max	Common Mode Input Voltage (V) min	Common Mode Input Voltage (V) max	Supply Voltage (V) min	Supply Voltage (V) max	Voltage Gain (V/V)
TSC101	High side current sense amplifier	SOT23-5L	Automotive,Industrial	-40	125	300	2.8	30	4	24	100,20,50
TSC102	High side current sense amplifier plus signal conditioning amplifier	SO-8,TSSOP-8L	Automotive,Industrial	-40	125	420	2.8	30	3.5	5.5	20
TSC1021	High side current sense amplifier	TSSOP-8L	Automotive,Industrial	-40	125	300	2.8	30	3.5	5.5	20,50
TSC103	High voltage, high side current sense amplifier	SO-8,TSSOP-8L	Automotive,Industrial	-40	125	360	2.9	70	2.7	5.5	100
TSC1031	High-voltage high side current sense amplifier	SO-8,TSSOP-8L	Automotive,Industrial	-40	125	360	2.9	70	2.7	5.5	100
TSC200	High voltage, current sense amplifier with open drain comparator and ref	MiniSO-8,SO-8	Automotive,Industrial	-40	125	1800	-16	80	2.7	18	20
TSC2010	High voltage, precision, bidirectional current sense amplifier	MiniSO-8,SO-8	Automotive,Industrial	-40	125	2300	-20	70	2.7	5.5	20
TSC2010H	High temperature, high voltage, precision, bidirectional current sense amplifiers	SO-8	Automotive	-40	150	2300	-20	70	2.7	5.5	20
TSC2011	High voltage, precision, bidirectional current sense amplifier	MiniSO-8,SO-8	Automotive,Industrial	-40	125	2300	-20	70	2.7	5.5	60
TSC2011H	High voltage, precision, bidirectional current sense amplifier	SO-8	Automotive	-40	150	2300	-20	70	2.7	5.5	60
TSC2012	High voltage, precision, bidirectional current sense amplifier	MiniSO-8,SO-8	Automotive,Industrial	-40	125	2300	-20	70	2.7	5.5	100
TSC2012H	High voltage, precision, bidirectional current sense amplifier	SO-8	Automotive	-40	150	2300	-20	70	2.7	5.5	100
TSC210	Low / High side bidirectional, zero-drift, current sense amplifiers	QFN-10L,SC70-6	Automotive,Industrial	-40	125	100	-0.3	26	2.7	26	200
TSC211	Low / High side bidirectional, zero-drift, current sense amplifiers	QFN-10L,SC70-6	Automotive,Industrial	-40	125	100	-0.3	26	2.7	26	500
TSC212	Low / High side bidirectional, zero-drift, current sense amplifiers	QFN-10L,SC70-6	Automotive,Industrial	-40	125	100	-0.3	26	2.7	26	1000
TSC213	Low / High side bidirectional, zero-drift, current sense amplifiers	QFN-10L,SC70-6	Automotive,Industrial	-40	125	100	-0.3	26	2.7	26	50
TSC214	Low / High side bidirectional, zero-drift, current sense amplifiers	QFN-10L,SC70-6	Automotive,Industrial	-40	125	100	-0.3	26	2.7	26	100
TSC215	Low / High side bidirectional, zero-drift, current sense amplifiers	QFN-10L,SC70-6	Automotive,Industrial	-40	125	100	-0.3	26	2.7	26	75

Automotive Op Amps

Overview

Our automotive-grade op amps meet the requirements of **extreme reliability and quality** demanded by the automotive market and applications. Supporting temperature ranges that can go up to 150°C, our automotive operational amplifiers offer:

- AEC-Q100 and Q101 compliance
- TS-16949 certification
- PPAP availability
- AEC-Q001 and Q002 guidelines for Statistical Yield Analysis (SYA) and Part Average Testing (PAT) at EWS
- Specific screening and test methods above and beyond AEC-Q100 compliance, such as performance of a 100% hot test (125°C) during the back-end (packaging and testing) stage
- Space-saving packages, such as DFN, QFN and MiniSO

Op amps and comparators available in the space-saving MiniSO8 package

The LM2904WHYST dual op amp and LM2903WHYST dual comparator in 4.9 mm x 3.0 mm MiniSO8 are qualified for operation from -40 °C to 150 °C, with the added advantage of 50 % smaller footprint than other Grade-0 parts in standard SO8, giving automotive designers twice the freedom to miniaturize ECUs deployed in the most extreme temperature environments and safety-critical systems.

Most reliable automotive product portfolio ranging from industry-standard to high performance op-amps

LM2902WY consists of four independent, high-gain, internally frequency-compensated operational amplifiers designed especially for automotive and industrial control systems. The rail-to-rail input and output capability of the TSX9291Y operates on a wide supply voltage range of 4 V to 16 V with a gain bandwidth product of 16 MHz.

Amplifiers and Comparators / Operational Amplifiers (Op Amps)/Automotive Op Amps

Part Number	General Description	Package	Grade	Number of Channels	Operating Temperature (°C) min	Operating Temperature (°C) max	Supply Current per Channel (µA) typ	Supply Current per Channel (µA) max	Supply Voltage (V) min	Supply Voltage (V) max	Input Offset Voltage (mV) max	Input Bias Current (pA) max	Gain Bandwidth Product (MHz) typ	Slew Rate (V/µs)	Output Current (mA) typ	Rail to Rail Input	Rail to Rail Output	Input Equivalent Noise Voltage (nV/√Hz) typ
LM158	Low power dual op-amps with low input bias current	QFN-8L P 0.5 mm,SO-8	Industrial	2	-55	125	350	600	3	32	5	150000	1.1	0.6	40	false	false	55
LM258	Low-power dual op-amps with low input bias current	QFN-8L P 0.5 mm,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	105	350	600	3	32	5	150000	1.1	0.6	60	false	false	55
LM258W	Low power dual operational amplifiers	SO-8,TSSOP-8L	Automotive,Industrial	2	-40	105	350	600	3	32	5	150000	1.1	0.6	40	false	false	55
LM2902	Low power, bipolar op-amp	QFN-16L,SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	375	750	3	30	7	150000	1.3	0.4	40	false	false	40
LM2902B	Automotive-grade, low power, quad, 36 V operational amplifier	QFN-16L,SO-14,TSSOP-14L	Automotive	4	-40	125	350	600	3	36	4	150000	1.3	0.4	40	false	false	40
LM2902W	Low power quad operational amplifier	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	700	1200	3	30	7	150000	1.3	0.4	20	false	false	40
LM2904	Low power, bipolar op-amp	MiniSO-8,QFN-8L P 0.5 mm,QFN-8L WF,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	350	600	3	30	7	150000	1.1	0.6	40	false	false	55
LM2904A	Low power, bipolar op-amp	SO-8,TSSOP-8L	Automotive	2	-40	125	350	600	3	30	2	150000	1.1	0.6	40	false	false	55
LM2904AH	Low power, bipolar op-amp	QFN-8L WF,TSSOP-8L	Automotive	2	-40	150	350	600	3	30	6	150000	1.1	0.6	40	false	false	55
LM2904AW	Low power dual operational amplifier	TSSOP-8L	Automotive	2	-40	125	350	600	3	30	2	150000	1.1	0.6	40	false	false	55
LM2904B	Automotive-grade, low power, dual, 36 V operational amplifiers	MiniSO-8,QFN-8L WF,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	350	600	3	36	4	150000	1.2	0.75	40	false	false	55
LM2904W	Low Power Dual Operational Amplifier	SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	350	600	3	30	7	150000	1.1	0.6	40	false	false	55
LM2904WH	Dual general purpose operational amplifier	MiniSO-8,SO-8	Automotive,Industrial	2	-40	150	350	600	3	30	7	150000	1.1	0.6	40	false	false	55
LMV321	Low power rail-to-rail input/output op-amp	SOT23-5L	Automotive,Industrial	1	-40	125	145	200	2.7	6	3	50000	1	0.35	48	true	true	40
LMV324	Low power rail-to-rail input/output op amp	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	145	200	2.7	6	3	50000	1	0.35	46	true	true	40
LMV358	Low power rail-to-rail input/output op-amp	SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	145	200	2.7	6	3	50000	1	0.35	46	true	true	40
LMV821	Low power (440µA), general purpose BiPolar 5V Op-Amp, GBP=5.5MHz, single	SC70-5,SOT23-5L	Automotive,Industrial	1	-40	125	300	600	2.5	5.5	3.5	120000	5.5	1.9	56	false	true	16
LMV821A	Low power (400µA), general purpose Bipolar 5V Op-Amp, GBP=5.5MHz, small offset, single	SC70-5,SOT23-5L	Automotive,Industrial	1	-40	125	300	600	2.5	5.5	0.8	120000	5.5	1.9	56	false	true	16
LMV822	Low power (440µA), general purpose Bipolar 5V Op-Amps, GBP=5.5MHz, dual	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	300	600	2.5	5.5	3.5	120000	5.5	1.9	56	false	true	16
LMV822A	Low power (440µA), general purpose Bipolar 5V Op-Amps, GBP=5.5MHz, small offset, dual	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	300	600	2.5	5.5	0.8	120000	5.5	1.9	56	false	true	16
LMV824	Low power (440µA), general purpose Bipolar 5V Op-Amps, GBP=5.5MHz, quad	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	300	600	2.5	5.5	3.5	120000	5.5	1.9	56	false	true	16
LMV824A	Low power (440µA), general purpose Bipolar 5V Op-Amps, GBP=5.5MHz, small offset, quad	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	300	600	2.5	5.5	0.8	120000	5.5	1.9	56	false	true	16
MC33078	Low-noise op-amps	SO-8	Automotive,Industrial	2	-40	125	2000	2500	5	30	2	750000	15	7	30	false	false	4.5
MC33079	Low-noise op-amps	SO-14	Automotive,Industrial	4	-40	105	2000	2500	5	30	2.5	750000	15	7	30	false	false	4.5
TL072B	JFET inputs, low input bias current	SO-8	Automotive,Industrial	2	-40	125	1400	2500	5	36	3	200	4	16	40	false	false	45
TL074	JFET inputs, low input bias current	SO-14	Automotive,Industrial	4	-40,0	105,70	1400	2500	6	36	6	200	4	16	40	false	false	15
TL082	JFET inputs, low input bias current	SO-8,TSSOP-8L	Automotive,Industrial	2	-40,0	105,70	1400	2500	6	36	10	200	4	16	40	false	false	15
TL084BI	JFET inputs, low input bias current	SO-14	Automotive,Industrial	4	-40	125	1400	2500	6	36	3	200	4	16	40	false	false	15
TL084I	JFET inputs, low input bias current	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	1400	2500	6	36	10	200	4	16	40	false	false	15

TS1871	1.8V Input/Output Rail-to-Rail Low Power Operational Amplifiers	SO-8,SOT23-5L	Automotive,Industrial	1	-40	125	400	560	1.8	6	3	125000	1.8	0.6	72	true	true	27
TS1871A	1.8V Input/Output Rail-to-Rail Low Power Operational Amplifiers	SOT23-5L	Automotive,Industrial	1	-40	125	400	560	1.8	6	1	125000	1.8	0.6	72	true	true	27
TS1872	1.8V min. voltage supply, micropower	SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	400	560	1.8	6	3	125000	1.8	0.6	72	true	true	27
TS1872A	1.8V min. voltage supply, micropower	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	400	560	1.8	6	1	125000	1.8	0.6	72	true	true	27
TS1874	1.8V min. voltage supply, micropower	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	400	560	1.8	6	3	125000	1.8	0.6	72	true	true	27
TS1874A	1.8V min. voltage supply, micropower	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	400	560	1.8	6	1	125000	1.8	0.6	72	true	true	27
TS321	Single LM324, LM358 enhanced version in sot23-5 package	SOT23-5L	Automotive,Industrial	1	-40	125	500	800	3	30	4	150000	0.8	0.4	40	false	false	40
TS507	High precision single supply rail to rail op-amp	SO-8,SOT23-5L	Automotive,Industrial	1	-40,0	125,85	850	1150	2.7	5.5	0.1	70000	1.9	0.6	115	true	true	12
TS512	Low noise & distortion (8nV/sqrtHz & 0.03%)	SO-8	Automotive,Industrial	2	-40	125	500	750	6	30	2.5	150000	3	1.5	23	false	false	8
TS512A	Low noise & distortion (8nV/sqrtHz & 0.03%)	SO-8	Automotive,Industrial	2	-40	125	500	750	6	30	0.5	150000	3	1.5	23	false	false	8
TS512B	Low noise & distortion (8nV/sqrtHz & 0.03%)	SO-8	Automotive	2	-40	125	500	750	6	30	0.5	150000	3	1.5	23	false	false	8
TS912	Low power with CMOS inputs	SO-8	Automotive,Industrial	2	-40	125	400	600	2.7	16	10	150	1.4	1	70	true	true	30
TS912A	Low power with CMOS inputs	SO-8	Automotive,Industrial	2	-40	125	400	600	2.7	16	5	150	1.4	1	70	true	true	30
TS912B	Low power with CMOS inputs	SO-8	Automotive,Industrial	2	-40	125	400	600	2.7	16	2	150	1.4	1	70	true	true	30
TS914	Low power with CMOS inputs	SO-14	Automotive,Industrial	4	-40	125	400	600	2.7	16	10	150	1.4	1	70	true	true	30
TS914A	Low power with CMOS inputs	SO-14	Automotive,Industrial	4	-40	125	400	600	2.7	16	5	150	1.4	1	70	true	true	30
TS922	Excellent audio performance / low distortion (0.005%)	CSP P 0.5 mm,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	1000	1500	2.7	12	3	100000	4	1.3	80	true	true	9
TS9222	Precision rail-to-rail high output current op-amps	SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	900	1200	2.7	12	0.5	55000	4	1.3	80	true	true	9
TS9224	Precision rail-to-rail high output current op-amps	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	900	1200	2.7	12	0.5	55000	4	1.3	80	true	true	9
TS922A	Excellent audio performance / low distortion (0.005%)	SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	1000	1500	2.7	12	0.9	100000	4	1.3	80	true	true	9
TS924	Rail-to-rail high output current op-amps	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	1000	1750	2.7	12	3	100000	4	1.3	80	true	true	9
TS924A	Excellent audio performance / low distortion (0.005%)	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	1000	1750	2.7	12	0.9	100000	4	1.3	80	true	true	9
TS934	Micropower amplifier with CMOS inputs	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	85	20	33	2.7	10	10	150	0.1	0.05	5	false	true	76
TS934A	Micropower amplifier with CMOS inputs	SO-14	Automotive	4	-40	85	20	33	2.7	10	5	150	0.1	0.05	5	false	true	76
TS951	Real input & output rail to rail / low distortion (0.01%)	SO-8,SOT23-5L	Automotive,Industrial	1	-40	125	900	1300	2.7	12	6	100000	3	1	22	true	true	25
TS9511	Precision rail-to-rail input/output 3 MHz single operational amplifier	SOT23-5L	Automotive,Industrial	1	-40	125	950	1200	2.7	12	0.8	70000	3	1	20	true	true	25
TS952	Real input & output rail to rail / low distortion (0.01%)	SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	900	1300	2.7	12	6	100000	3	1	22	true	true	25
TS954	Real input & output rail to rail / low distortion (0.01%)	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	900	1300	2.7	12	6	100000	3	1	22	true	true	25
TS971	Output rail-to-rail very low-noise op-amps	SO-8,SOT23-5L	Automotive,Industrial	1	-40	125	2000	2800	2.7	10	5	750000	12	4	100	false	true	4
TS972	Output rail-to-rail very low-noise op-amps	MiniSO-8,QFN-8L P 0.5 mm,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	2000	2800	2.7	10	5	750000	12	4	100	false	true	4
TS974	Output rail-to-rail very low-noise op-amps	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	2000	2800	2.7	10	5	750000	12	4	100	false	true	4
TS982	High output current dual operational amplifier	PowerSO-8	Automotive,Industrial	2	-40	125	5500	7200	2.5	5.5	5	500000	2.2	0.7	200	true	true	17
TSB511	Rail-to-rail inputs and outputs, 36 V, 6 MHz op amps	SOT23-5L	Automotive,Industrial	1	-40	125	1800	2800	2.7	36	1.5	900000	6	3	50	true	true	12

TSB512	Rail-to-rail inputs and outputs, 36 V, 6 MHz op-amps	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	1800	2800	2.7	36	1.5	900000	6	3	50	true	true	12
TSB514	Rail-to-rail inputs and outputs, 36 V, 6 MHz op-amps	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	1800	2800	2.7	36	1.5	900000	6	3	50	true	true	12
TSB572	Low-power, 2.5 MHz, RR IO, 36 V BICMOS operational amplifier	MiniSO-8,QFN-8L WF,SO-8	Automotive,Industrial	2	-40	125	380	470	4	36	1.5	30000	2.5	1	60	true	true	20
TSB582	200 mA output current with thermal shutdown and output current limiter, 3.1 MHz, 36 V, BICMOS dual	PowerSO-8,QFN-8L WF	Automotive,Industrial	2	-40	125	2500	3300	4	36	2.4	2000	3.1	2	200	false	true	45
TSB611	Low power, rail-to-rail output, 36V operational amplifier	SOT23-5L	Automotive,Industrial	1	-40	125	103	125	2.7	36	1	10000	0.56	0.18	60	false	true	28
TSB612	Low power, rail-to-rail output, 36V operational amplifier	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	103	125	2.7	36	1	10000	0.56	0.18	60	false	true	28
TSB621	Low power, 1.7MHz, rail-to-rail output, 36V operational amplifier	SOT23-5L	Automotive,Industrial	1	-40	125	310	375	2.7	36	1	30000	1.7	0.6	45	false	true	25
TSB622	Low power, 1.7MHz, rail-to-rail output, 36V operational amplifier	MiniSO-8,QFN-8L WF,SO-8	Automotive,Industrial	2	-40	125	310	375	2.7	36	1	30000	1.7	0.6	45	false	true	25
TSB624	Low power, 1.7MHz, rail-to-rail output, 36V operational amplifier	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	310	375	2.7	36	1	30000	1.7	0.6	45	false	true	25
TSB711	Precision, 6 MHz, RR IO, 36 V BICMOS operational amplifier	SOT23-5L	Automotive,Industrial	1	-40	125	1800	2800	2.7	36	0.8	900000	6	3	50	true	true	12
TSB711A	Precision, 6 MHz, RR IO, 36 V BICMOS operational amplifier	SOT23-5L	Automotive,Industrial	1	-40	125	1800	2800	2.7	36	0.3	900000	6	3	50	true	true	12
TSB712	Precision, 6 MHz, RR IO, 36 V BICMOS operational amplifier	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	1800	2800	2.7	36	0.8	900000	6	3	50	true	true	12
TSB712A	Precision, 6 MHz, RR IO, 36 V BICMOS operational amplifier	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	1800	2800	2.7	36	0.3	900000	6	3	50	true	true	12
TSH80	Rail-to-rail video op-amp with standby	SOT23-5L	Automotive	1	-40	85	8200	10500	4.5	12	10	15000000	65	115	55	false	true	11
TSH82	Rail-to-rail video op-amp	SO-8	Automotive,Industrial	2	-40	85	8200	10500	4.5	12	10	15000000	65	115	55	false	true	11
TSU111H	High temperature (150°C) & long mission profile automotive grade, high accuracy (250 μV) 5 V CMOS	SOT23-5L	Automotive	1	-40	150	1.7	2.4	1.5	5.5	0.25	1	0.023	5.5	5	true	true	200
TSU112Y	Nanopower (900 nA) high accuracy (150 μV) 5V CMOS Auto Op-Amp	MiniSO-8,QFN-8L WF	Automotive	2	-40	125	0.9	1.35	1.5	5.5	0.15	5	0.0115	0.0027	41	true	true	265
TSV321	General purpose low voltage rail to rail input/output op-amp	SOT23-5L	Automotive,Industrial	1	-40	125	500	835	2.5	6	3	125000	1.4	0.6	80	true	true	27
TSV321A	General purpose low voltage rail to rail input/output op-amp	SOT23-5L	Automotive,Industrial	1	-40	125	500	835	2.5	6	1	125000	1.4	0.6	80	true	true	27
TSV324	General purpose low voltage rail to rail input/output op-amp	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	500	835	2.5	6	3	125000	1.4	0.6	80	true	true	27
TSV324A	General purpose low voltage rail to rail input/output op-amp	SO-14,TSSOP-14L	Automotive	4	-40	125	500	835	2.5	6	3	125000	1.4	0.6	80	true	true	27
TSV358	General purpose low voltage rail to rail input/output op-amp	MiniSO-8,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	500	835	2.5	6	3	125000	1.4	0.6	80	true	true	27
TSV358A	General purpose low voltage rail to rail input/output op-amp	MiniSO-8,SO-8,TSSOP-8L	Automotive,Industrial	2	-40	125	500	835	2.5	6	1	125000	1.4	0.6	80	true	true	27
TSV522	High merit factor (1.15 MHz for 45 uA) CMOS op-amps	MiniSO-8,QFN-8L P 0.5 mm	Automotive,Industrial	2	-40	125	45	60	2.7	5.5	1	10	1.15	0.89	55	true	true	57
TSV522A	High merit factor (1.15 MHz for 45 uA) CMOS op-amps	MiniSO-8,QFN-8L P 0.5 mm	Automotive,Industrial	2	-40	125	45	60	2.7	5.5	0.6	10	1.15	0.89	55	true	true	57
TSV524	High merit factor (1.15 MHz for 45 uA) CMOS op-amps	QFN-16L,TSSOP-14L	Automotive,Industrial	4	-40	125	45	60	2.7	5.5	1	10	1.15	0.89	55	true	true	57
TSV524A	High merit factor (1.15 MHz for 45 uA) CMOS op-amps	TSSOP-14L	Automotive,Industrial	4	-40	125	45	60	2.7	5.5	0.6	10	1.15	0.89	55	true	true	57
TSV631	Rail-to-rail input/output 5V CMOS Op-Amp, micro-power (60uA), GBP=880kHz, single	SC70-5,SOT23-5L	Automotive,Industrial	1	-40	125	60	69	1.5	5.5	3	10	0.88	0.34	69	true	true	60
TSV632	Rail-to-rail input/output 5V CMOS Op-Amps, micro-power (60uA), GBP=880kHz, dual	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	60	69	1.5	5.5	3	10	0.88	0.34	69	true	true	60
TSV634	Rail-to-rail input/output 5V CMOS Op-Amps, micro-power (60uA), GBP=880kHz, quad	QFN-16L,TSSOP-14L	Automotive,Industrial	4	-40	125	60	69	1.5	5.5	3	10	0.88	0.34	69	true	true	60
TSV771	High bandwidth (20 MHz) low offset (200 μV) rail-to-rail 5V Op amp	SOT23-5L	Automotive,Industrial	1	-40	125	1900	2100	2	5.5	0.2	100	20	13	65	true	true	10
TSV772	High bandwidth (20 MHz) low offset (200 μV) rail-to-rail 5V op amp	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	1900	2100	2	5.5	0.2	100	20	13	65	true	true	10
TSV7721	High bandwidth (22MHz) Low offset (200 μV) low-rail 5V op amp	SOT23-5L	Automotive,Industrial	1	-40	125	1700	2200	1.8	5.5	0.2	100	20	11	65	false	true	7

TSV7722	High bandwidth (22MHz) Low offset (200 μV) low-rail 5V op amp	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	1700	2200	1.8	5.5	0.2	100	22	11	65	false	true	7
TSV782	High bandwidth (30MHz) Low offset (200μV) Rail-to-rail 5V op amp	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	3300	4000	2	5.5	0.2	300	30	19	60	true	true	14
TSV791	High bandwidth (50MHz) Low offset (200μV) Rail-to-rail 5V Op amp	SOT23-5L	Automotive,Industrial	1	-40	125	5000	6000	2.2	5.5	0.2	10	50	30	60	true	true	6.5
TSV792	High bandwidth (50MHz) Low offset (200μV) Rail-to-rail 5V Op amp	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	5000	6000	2.2	5.5	0.2	10	50	30	60	true	true	6.5
TSV851	Low-power (180uA), general-purpose 5V Bipolar Op-Amp, GBP=1.3MHz, single	SC70-5,SOT23-5L	Automotive,Industrial	1	-40	125	180	180	2.3	5.5	4	60000	1.3	0.7	56	false	true	39
TSV851A	Low-power (180uA), general-purpose 5V Bipolar Op-Amp, GBP=1.3MHz, small offset, single	SC70-5,SOT23-5L	Automotive,Industrial	1	-40	125	180	180	2.3	5.5	0.8	60000	1.3	0.7	56	false	true	39
TSV852	Low-power (180uA), general-purpose 5V Bipolar Op Amps, GBP=1.3MHz, dual	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	180	180	2.3	5.5	4	60000	1.3	0.7	56	false	true	39
TSV852A	Low-power (180uA), general-purpose 5V Bipolar Op Amps, GBP=1.3MHz, small offset, dual	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	180	180	2.3	5.5	0.8	60000	1.3	0.7	56	false	true	39
TSV854	Low-power (180uA), general-purpose 5V Bipolar Op-Amps, GBP=1.3MHz, quad	QFN-16L,SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	180	180	2.3	5.5	4	60000	1.3	0.7	56	false	true	39
TSV854A	Low-power (180uA), general-purpose 5V Bipolar Op Amps, GBP=1.3MHz, small offset, quad	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	180	180	2.3	5.5	0.8	60000	1.3	0.7	56	false	true	39
TSV911	Wide-bandwidth (8MHz) rail to rail input/output 5V CMOS Op-Amp, single	SO-8,SOT23-5L	Automotive,Industrial	1	-40	125	780	1100	2.5	5.5	4.5	10	8	4.5	35	true	true	27
TSV911A	Wide-bandwidth (8MHz) rail to rail input/output 5V CMOS Op-Amp, small offset, single	SO-8,SOT23-5L	Automotive,Industrial	1	-40	125	780	1100	2.5	5.5	1.5	10	8	4.5	35	true	true	27
TSV912	Wide-bandwidth (8MHz) rail to rail input/output 5V CMOS Op-Amps, dual	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	780	1100	2.5	5.5	4.5	10	8	4.5	35	true	true	27
TSV912A	Wide-bandwidth (8MHz) rail to rail input/output 5V CMOS Op-Amps, small offset, dual	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	780	1100	2.5	5.5	1.5	10	8	4.5	35	true	true	27
TSV912H	Wide-bandwidth (8MHz), high temperature range (150oC) rail to rail input/output 5V CMOS Op-Amps, dual	SO-8	Automotive	2	-40	150	780	1100	2.5	5.5	4.5	10	8	4.5	35	true	true	27
TSV914	Wide-bandwidth (8MHz) rail to rail input/output 5V CMOS Op-Amps, quad	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	780	1100	2.5	5.5	4.5	10	8	4.5	35	true	true	27
TSV914A	Wide-bandwidth (8MHz) rail to rail input/output 5V CMOS Op-Amps, small offset, quad	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	780	1100	2.5	5.5	1.5	10	8	4.5	35	true	true	27
TSV991	Wide-bandwidth (20MHz) rail to rail input/output 5V CMOS Op-Amp, single	QFN-8L P 0.5 mm,SO-8,SOT23-5L	Automotive,Industrial	1	-40	125	820	1100	2.5	5.5	4.5	10	20	10	35	true	true	27
TSV991A	Wide bandwidth (20MHz) rail to rail input/output 5V CMOS Op-Amp, small offset, single	QFN-6L P 0.4 mm,QFN-8L P 0.5 mm,SO-8,SOT23-5L	Automotive,Industrial	1	-40	125	820	1100	2.5	5.5	1.5	10	20	10	35	true	true	27
TSV992	Wide bandwidth (20MHz) rail to rail input/output 5V CMOS Op-Amps, dual	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	820	1100	2.5	5.5	4.5	10	20	10	35	true	true	27
TSV992A	Wide bandwidth (20MHz) rail to rail input/output 5V CMOS Op-Amps, small offset, dual	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	820	1100	2.5	5.5	1.5	10	20	10	35	true	true	27
TSV994	Wide bandwidth (20MHz) rail to rail input/output 5V CMOS Op-Amps, quad	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	820	1100	2.5	5.5	4.5	10	20	10	35	true	true	27
TSV994A	Wide bandwidth (20MHz), rail to rail input/output 5V CMOS Op-Amps, small offset, quad	SO-14,TSSOP-14L	Automotive,Industrial	4	-40	125	820	1100	2.5	5.5	1.5	10	20	10	35	true	true	27
TSX561	Micropower (235uA), 16V CMOS Op-Amp, single, GBP 900kHz	SOT23-5L	Automotive,Industrial	1	-40	125	250	360	3	16	1	100	0.9	1.1	90	true	true	48
TSX561A	Micropower (235uA), 16V CMOS Op-Amp, single, GBP 900kHz, low offset voltage version	SOT23-5L	Automotive,Industrial	1	-40	125	250	360	3	16	0.6	100	0.9	1.1	90	true	true	48
TSX562	Micropower (235uA), 16V CMOS Op-Amps, dual, GBP 900kHz	DFN-8L P 0.5 mm,MiniSO-8	Automotive,Industrial	2	-40	125	250	360	3	16	1	100	0.9	1.1	90	true	true	48
TSX562A	Micropower (235uA), 16V CMOS Op-Amps, dual, GBP 900kHz, low offset voltage version	MiniSO-8	Automotive,Industrial	2	-40	125	250	360	3	16	0.6	100	0.9	1.1	90	true	true	48
TSX564	Micropower (235uA), 16V CMOS Op-Amps, quad, GBP 900kHz	QFN-16L,TSSOP-14L	Automotive,Industrial	4	-40	125	250	360	3	16	1	100	0.9	1.1	90	true	true	48
TSX564A	Micropower (235uA), 16V CMOS Op-Amps, quad, low offset voltage version	TSSOP-14L	Automotive,Industrial	4	-40	125	250	360	3	16	0.6	100	0.9	1.1	90	true	true	48

TSX631	Micropower (60uA), rail-to-rail 16V CMOS Op-Amp, single, GBP 200kHz	SOT23-5L	Automotive,Industrial	1	-40	125	45	60	3.3	16	1	100	0.2	0.12	90	true	true	60
TSX631A	Micropower (60uA), rail-to-rail 16V CMOS Op-Amp, single, GBP 200kHz, low offset voltage version	SOT23-5L	Automotive,Industrial	1	-40	125	45	60	3.3	16	0.5	100	0.2	0.12	90	true	true	60
TSX632	Micropower (60uA), rail-to-rail 16V CMOS Op-Amps, dual, GBP 200kHz	DFN-8L P 0.5 mm,MiniSO-8	Automotive,Industrial	2	-40	125	45	60	3.3	16	1	100	0.2	0.12	90	true	true	60
TSX632A	Micropower (60uA), rail-to-rail 16V CMOS Op-Amps, dual, GBP 200kHz, low offset voltage version	MiniSO-8	Automotive,Industrial	2	-40	125	45	60	3.3	16	0.5	100	0.2	0.12	90	true	true	60
TSX634	Micropower (60uA), rail-to-rail 16V CMOS Op-Amps, quad, GBP 200kHz	QFN-16L,TSSOP-14L	Automotive,Industrial	4	-40	125	45	60	3.3	16	1	100	0.2	0.12	90	true	true	60
TSX634A	Micropower (60uA), rail-to-rail 16V CMOS Op-Amps, quad, GBP 200kHz, low offset voltage version	TSSOP-14L	Automotive,Industrial	4	-40	125	45	60	3.3	16	0.5	100	0.2	0.12	90	true	true	60
TSX711	Precision (200uV), rail-to-rail 16V CMOS Op-Amp, single, GBP 2.7MHz	SOT23-5L	Automotive,Industrial	1	-40	125	660	900	2.7	16	0.2	50	2.7	1.3	50	true	true	22
TSX711A	Precision, rail-to-rail 16V CMOS op-amps	SOT23-5L	Automotive,Industrial	1	-40	125	660	900	2.7	16	0.1	50	2.5	1.5	50	true	true	20
TSX712	Precision (200uV), rail-to-rail 16V CMOS Op-Amps, dual, GBP 2.7MHz	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	660	900	2.7	16	0.2	50	2.7	1.3	50	true	true	22
TSX7191	Precision (200uV), rail-to-rail, 16 V CMOS Op-Amp, single, GBP 9MHz	SOT23-5L	Automotive,Industrial	1	-40	125	660	900	2.7	16	0.2	50	9	2.3	50	true	true	22
TSX7191A	Low-power, precision, rail-to-rail, 9.0 MHz, 16 V operational amplifiers	SOT23-5L	Automotive,Industrial	1	-40	125	660	900	2.7	16	0.1	50	9	2.3	50	true	true	22
TSX7192	Precision (200uV), rail-to-rail 16 V cmos Op-Amps, dual, GBP 9MHz	MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	660	900	2.7	16	0.2	50	9	2.3	50	true	true	22
TSX921	Large bandwidth (10MHz), rail-to-rail 16V CMOS Op-Amp, single	SOT23-5L	Automotive,Industrial	1	-40	125	2800	3400	4	16	4	100	10	17.2	62	true	true	16.5
TSX922	Large bandwidth (10MHz), rail-to-rail 16V CMOS Op-Amps, dual	DFN-8L P 0.5 mm,MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	2800	3400	4	16	4	100	10	17.2	62	true	true	16.5
TSX9291	Large bandwidth (16MHz), rail-to-rail 16V CMOS Op-Amp, single	SOT23-5L	Automotive,Industrial	1	-40	125	2800	3400	4	16	4	100	16	26	62	true	true	16.5
TSX9292	Large bandwidth (16MHz), rail-to-rail 16V CMOS Op-Amps, dual	DFN-8L P 0.5 mm,MiniSO-8,SO-8	Automotive,Industrial	2	-40	125	2800	3400	4	16	4	100	16	26	62	true	true	16.5
TSZ121	Very high accuracy (5 uV) zero drift 5 V CMOS Op-Amp, single, GBP=400kHz	SC70-5,SOT23-5L	Automotive,Industrial	1	-40	125	31	40	1.8	5.5	0.005	200	0.4	0.19	17	true	true	37
TSZ122	Very high accuracy (5 uV) zero drift 5 V CMOS Op-Amps, dual, GBP=400kHz	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	31	40	1.8	5.5	0.005	200	0.4	0.19	17	true	true	37
TSZ124	Very high accuracy (5 uV) zero drift 5 V CMOS Op-Amps, quad, GBP=400kHz	QFN-16L,TSSOP-14L	Automotive,Industrial	4	-40	125	31	40	1.8	5.5	0.005	200	0.4	0.19	17	true	true	37
TSZ181	Very high accuracy (25 uV) zero drift 5V CMOS Op-Amps	QFN-6L P 0.4 mm,SOT23-5L	Automotive,Industrial	1	-40	125	800	1000	2.2	5.5	0.025	200	3	4.7	25	true	true	37
TSZ181H	Automotive-grade, very high accuracy (25 uV), high bandwidth (3 MHz), high temperature (150 °C), zero-drift	SOT23-5L	Automotive	1	-40	150	800	1000	2.2	5.5	0.025	200	3	4.7	25	true	true	37
TSZ182	Very high accuracy (25 uV) zero drift 5V CMOS Op-Amps	MiniSO-8,QFN-8L P 0.5 mm,SO-8	Automotive,Industrial	2	-40	125	800	1000	2.2	5.5	0.025	200	3	4.7	25	true	true	37
TSZ182H	Automotive-grade, very high accuracy (25 uV), high bandwidth (3 MHz), high temperature (150 °C), zero-drift	SO-8	Automotive	2	-40	150	800	1000	2.2	5.5	0.025	200	3	4.7	25	true	true	37
TSZ182H1	Automotive-grade, very high accuracy (70 uV), high bandwidth (3 MHz), high temperature (175 °C), zero-drift	SO-8	Automotive	2	-40	175	800	1000	2.2	5.5	0.07	200	3	4.7	25	true	true	37

Automotive Power Discretes

Overview

ST offers a wide portfolio of automotive grade power discrete devices for reliable, robust and power-efficient .

The portfolio includes:

- Automotive MOSFETs ranging from -80 to 1000 V housed in the most common package options for increased design flexibility
- Automotive IGBTs featuring a high switching frequency and short-circuit rating
- Automotive ultrafast diodes intended for DC-DC converters used in numerous automotive functions as well as rectification in the secondary side of on-board-charger (OBC) solutions
- Automotive SiC MOSFET the ideal high voltage power switch for vehicle electrification
- 650 and 1200 V automotive silicon carbide (SiC) diodes featuring the best-in-class forward voltage drop (V_F) and surge capability (I_{FSM})
- Automotive power Schottky diodes intended for DC-DC converters used in numerous automotive functions such as LED lighting , reverse battery protection and motor control
- Automotive bridge rectifier diodes intended for primary bridges used in automotive battery chargers
- AEC-Q101 Automotive thyristors designed for 2 to 22 kW on-board chargers in bridge or bridgeless rectifier topologies
- Automotive grade clamping diodes (TVS) and filters addressing all the protection sockets in automotive applications, from infotainment, navigation, communication, audio and video to battery charging systems, smart junction boxes, relays and power-lines

Up to 100V power Schottky and Ultrafast rectifiers now available in ultra-thin SOD123Flat and SOD128Flat packages

Only 1-mm thick, ST's 40, 60 and 100V AEC-Q101-qualified rectifiers - power Schottky as well as Ultrafast diodes - are tailored for smart driving applications. While fully footprint compatible, these are almost 60% thinner than the standard SMA package, providing designers with the ability to create lighter and slimmer modules or use these as replacements in existing designs. Both SOD123Flat and SOD128Flat packaged Schottky and Ultrafast diodes are available. The newly introduced **SMA Flat** and **SMB Flat** packages now offer more power density compared to SMA, SOD128Flat and SOD123Flat packages, while providing less than 1 mm thickness.

Automotive Analog and Power / Automotive Power Discretes/Automotive Bridge Rectifier Diodes

Part Number	General Description	Package	Number of Diodes spec	Repetitive Peak Reverse Voltage (V) max	Average Rectified Current (A) max	V _F (V) max
STBR3012-Y	Automotive 1200 V, 30 A Bridge Rectifier Diode	DO-247,H2PAK-2	1	1200	30	1.3
STBR6012-Y	Automotive 1200 V, 60 A Bridge Rectifier diode	DO-247	1	1200	60	1.3

Automotive Analog and Power / Automotive Power Discretes/Automotive IGBTs

Part Number	Package	V _{CES} (V) max	I _C (A) (@ T _c =100°C) max	P _{TOT} (W) max
GWA40MS120DF4AG	TO-247 long leads	1200	40	468
GWA40MS120F4AG	TO-247 long leads	1200	40	468
STG200M65F2D8AG	DICE	650	200	-
STGB10NB40LZT4	D2PAK	380	10	150
STGB18N40LZT4	D2PAK	360	30	150
STGB20N40LZ	D2PAK	365	25	150
STGB20NB41LZ	D2PAK	382	20	200
STGB25N36LZAG	D2PAK	350	25	150
STGB25N40LZAG	D2PAK	375	25	150
STGB30H60DLLFBAG	D2PAK	600	30	260
STGD10HF60KD	DPAK	600	10	62.5
STGD19N40LZ	DPAK	365	25	125
STGD20N40LZ	DPAK	390	25	125
STGD20N45LZAG	DPAK	485	25	125
STGD25N36LZAG	DPAK	350	25	150
STGD25N40LZAG	DPAK	375	25	150
STGI25N36LZAG	I2PAK	350	25	150
STGSB200M65DF2AG	ACEPACK SMIT	650	200	714
STGST200G65DFAG	STPAK	650	200	-
STGWA80H65DFBAG	TO-247 long leads	650	80	535
STGWA80H65FBAG	TO-247 long leads	650	80	535
STGYA120M65DF2AG	Max247 long leads	650	120	625

Automotive Analog and Power / Automotive Power Discretes/Automotive Power MOSFETs

Part Number	Package	VDSS (V)	RDS(on)(Ω) (@ 4.5/5V) max	RDS(on) (Ω) (@ VGS = 10V) max	Drain Current (Dc) (A) max	P _{TOT} (W) max	Q _g (nC) typ
SCT040H65G3SAG	H2PAK-7 straight leads	-	-	-	30	221	39.5
SH32N65DM6AG	ACEPACK SMIT	650	-	0.097	32	208	47
SH63N65DM6AG	ACEPACK SMIT	650	-	0.064	53	424	80
SH68N65DM6AG	ACEPACK SMIT	650	-	0.041	64	379	116
STB120N4F6	D2PAK	40	-	0.004	80	110	65
STB120N4LF6	D2PAK	40	0.005	0.004	80	110	80
STB12N60DM2AG	D2PAK	600	-	0.43	10	125	14.5
STB150NF55	D2PAK	55	-	0.006	150	300	140
STB155N3LH6	D2PAK	30	0.004	0.003	80	110	40
STB170NF04	D2PAK	40	-	0.005	80	300	117
STB18NF25	D2PAK	250	-	0.165	17	110	29.3
STB18NF30	D2PAK	330	-	0.18	18	150	44
STB200NF03	D2PAK	30	-	0.0036	120	300	113
STB270N4F3	D2PAK	40	-	0.002	160	330	110
STB30N65DM6AG	D2PAK	650	-	0.115	28	223	46
STB30N65M2AG	D2PAK	650	-	0.18	20	190	30.8
STB30NF20L	D2PAK	200	-	0.075	30	125	65
STB34N50DM2AG	D2PAK	500	-	0.12	26	190	44
STB36NM60N	D2PAK	600	-	0.105	29	210	83.6
STB37N60DM2AG	D2PAK	600	-	0.11	28	210	54
STB41N40DM6AG	D2PAK	400	-	0.065	41	250	53
STB43N65M5	D2PAK	650	-	0.063	42	250	100
STB45N40DM2AG	D2PAK	400	-	0.072	38	250	56
STB45N50DM2AG	D2PAK	500	-	0.084	35	250	57
STB45N60DM2AG	D2PAK	600	-	0.093	34	250	56
STB45NF06	D2PAK	60	-	0.028	38	80	32
STB46N30M5	D2PAK	300	-	0.04	53	250	95
STB46NF30	D2PAK	300	-	0.075	42	300	90
STB47N50DM6AG	D2PAK	500	-	0.071	38	250	57

STB47N60DM6AG	D2PAK	600	-	0.08	36	250	55
STB60NF06	D2PAK	60	-	0.016	60	150	49
STB60NF06LT4	D2PAK	60	0.016	0.014	60	110	35
STB75NF75L	D2PAK	75	0.013	0.011	75	300	110
STB76NF75	D2PAK	75	-	0.011	80	300	117
STB7ANM60N	D2PAK	600	-	0.9	5	45	14
STB80N4F6AG	D2PAK	40	-	0.006	80	70	36
STB80NF55-06T	D2PAK	55	-	0.0065	80	300	142
STB80NF55-08AG	D2PAK	55	-	0.008	80	300	112
STB85NF55	D2PAK	55	-	0.008	80	300	120
STB85NF55L	D2PAK	55	-	0.008	80	300	80
STB9NK80Z	D2PAK	800	-	1.8	5.2	125	40
STD105N10F7AG	DPAK	100	-	0.008	80	120	61
STD10NF30	DPAK	300	-	0.33	10	103	23
STD120N4F6	DPAK	40	-	0.004	80	110	65
STD120N4LF6	DPAK	40	0.005	0.004	80	110	80
STD12N60DM2AG	DPAK	600	-	0.43	10	110	14.5
STD12NF06LT4	DPAK	60	0.12	0.1	12	30	7.5
STD134N4F7AG	DPAK	40	-	0.0035	80	134	41
STD14NM50NAG	DPAK	500	-	0.32	12	90	27
STD155N3LH6	DPAK	30	0.004	0.003	80	110	40
STD15N50M2AG	DPAK	500	-	0.38	10	85	13
STD15P6F6AG	DPAK	-60	-	0.16	-10	35	6.4
STD170N4F7AG	DPAK	40	-	0.0028	80	172	63
STD18NF03L	DPAK	30	0.06	0.05	17	30	4.8
STD18NF25	DPAK	250	-	0.165	17	110	29.3
STD20NF06L	DPAK	60	-	0.04	24	60	12
STD25NF10LA	DPAK	100	-	0.035	25	100	38
STD25NF20	DPAK	200	-	0.125	18	110	28
STD26NF10	DPAK	100	-	0.038	25	100	55
STD30N6LF6AG	DPAK	60	0.03	0.025	24	40	26
STD30NF06	DPAK	60	-	0.028	28	70	43
STD30NF06LAG	DPAK	60	0.03	0.028	35	70	23

STD35NF06L	DPAK	60	0.02	0.017	35	80	25
STD3N95K5AG	DPAK	950	-	5	2	45	3.4
STD40P8F6AG	DPAK	-80	-	0.028	-40	100	73
STD44N4LF6	DPAK	40	0.018	0.0125	44	50	22
STD45P4LLF6AG	DPAK	-40	0.02	0.015	-50	58	65.5
STD47N10F7AG	DPAK	100	-	0.016	45	60	25
STD4NK100Z	DPAK	1000	-	6.8	2.2	90	18
STD5NM50AG	DPAK	500	-	0.8	7.5	100	13
STD64N4F6AG	DPAK	40	-	0.0082	54	60	44
STD65N55F3	DPAK	55	-	0.0085	80	110	33.5
STD70NS04ZL	DPAK	33	0.0105	0.0125	70	110	32
STD7ANM60N	DPAK	600	-	0.9	5	45	14
STD7N95K5AG	DPAK	950	-	1.25	9	110	9.6
STD80N4F6	DPAK	40	-	0.006	80	70	36
STD80N6F6	DPAK	60	-	0.005	80	120	147
STD85N10F7AG	DPAK	100	-	0.01	70	85	45
STD86N3LH5	DPAK	30	0.0065	0.005	80	70	14
STD8NF25	DPAK	250	-	0.42	8	72	16
STD95N4F3	DPAK	40	-	0.0058	80	110	40
STD95N4LF3	DPAK	40	-	0.006	80	110	50
STD96N3LLH6	DPAK	30	0.007	0.0042	80	70	20
STD9N65DM6AG	DPAK	650	-	0.44	9	89	11.7
STD9NM50N	DPAK	500	-	0.79	5	45	14
STGH30H65DFB-2AG	H2PAK-2	-	-	-	-	260	155
STGO30H60DLLFBAG	TO-LL	-	-	-	-	263	110
STH12N120K5-2AG	H2PAK-2	1200	-	1.9	7	250	36
STH13N120K5-2AG	H2PAK-2	1200	-	0.69	12	250	44.2
STH145N8F7-2AG	H2PAK-2	80	-	0.004	90	200	96
STH22N95K5-2AG	H2PAK-2	950	-	0.33	17.5	250	48
STH275N8F7-2AG	H2PAK-2	80	-	0.0021	180	315	193
STH275N8F7-6AG	H2PAK-6	80	-	0.0021	180	315	193
STH2N120K5-2AG	H2PAK-2	1200	-	10	1.5	60	5.3
STH300NH02L-6	H2PAK-6	24	0.0015	0.0012	180	300	109

STH30N65DM6-7AG	H2PAK-7	650	-	0.115	28	223	46
STH315N10F7-2	H2PAK-2	100	-	0.0023	180	315	180
STH315N10F7-6	H2PAK-6	100	-	0.0023	180	315	180
STH320N4F6-6	H2PAK-6	40	-	0.0013	200	340	240
STH410N4F7-2AG	H2PAK-2	40	-	0.0011	200	365	141
STH410N4F7-6AG	H2PAK-6	40	-	0.0011	200	365	141
STH47N60DM6-2AG	H2PAK-2	600	-	0.08	36	250	55
STHU32N65DM6AG	HU3PAK	650	-	0.097	37	320	52.6
STHU36N60DM6AG	HU3PAK	600	-	0.099	29	210	46
STI47N60DM6AG	I2PAK	600	-	0.08	36	250	55
STK130N4LF7AG	LFPK 5X6	40	-	0.0082	54	60	44
STK184N4F7AG	LFPK 5X6	40	-	0.002	100	136	35
STK224N4F7AG	LFPK 5X6	40	-	0.0015	100	150	50
STL10N3LLH5	PowerFLAT 3.3x3.3	30	0.022	0.019	9	2	5
STL110N4F7AG	PowerFLAT 5x6 WF	40	-	0.004	108	94	15
STL115N10F7AG	PowerFLAT 5x6 WF	100	-	0.006	100	136	72
STL117N4LF7AG	PowerFLAT 5x6 WF	40	0.005	0.0035	119	4.3	25
STL120N4F6AG	PowerFLAT 5x6 WF	40	-	0.0036	55	96	63
STL135N8F7AG	PowerFLAT 5x6 WF	80	-	0.0036	120	135	103
STL140N4F7AG	PowerFLAT 5x6 WF	40	-	0.0025	120	111	29
STL15DN4F5	PowerFLAT 5x6 double island WF	40	-	0.009	15	4.3	25
STL190N4F7AG	PowerFLAT 5x6 WF	40	-	0.002	120	127	41
STL19N3LLH6AG	PowerFLAT 5x6 WF	30	0.05	0.033	10	30	3.7
STL210N4F7AG	PowerFLAT 5x6 WF	40	-	0.0016	120	150	43
STL210N4LF7AG	PowerFLAT 5x6 WF	40	-	0.0016	120	150	56
STL225N6F7AG	PowerFLAT 5x6 WF	60	-	0.0014	120	188	98
STL325N4LF8AG	PowerFLAT 5x6 WF	40	0.0011	7.5E-4	373	188	95
STL38DN6F7AG	PowerFLAT 5x6 double island WF	60	-	0.027	10	58	8
STL40DN3LLH5	PowerFLAT 5x6 double island WF	30	0.025	0.018	11	4.7	4.5
STL45N10F7AG	PowerFLAT 5x6 WF	100	-	0.024	18	72	19.5

STL52DN4LF7AG	PowerFLAT 5x6 double island WF	40	0.02	0.016	18	65	8.4
STL58N3LLH5	PowerFLAT 5x6 WF	30	0.0112	0.009	56	62.5	6.5
STL64N4F7AG	PowerFLAT 5x6 WF	40	-	0.0085	64	65	9.8
STL66DN3LLH5	PowerFLAT 5x6 double island WF	30	0.079	0.065	20	4.7	12
STL66N3LLH5	PowerFLAT 5x6 WF	30	0.0075	0.0058	80	72	12
STL70N4LLF5	PowerFLAT 5x6 WF	40	0.009	0.0067	18	4.8	12.9
STL7DN6LF3	PowerFLAT 5x6 double island WF	60	0.06	0.043	6.5	52	8.7
STL7LN65K5AG	PowerFLAT 5x6 VHV	650	-	1.15	5	79	11.7
STL7N6LF3	PowerFLAT 5x6 WF	60	0.06	0.043	6.5	4.3	8.8
STL86N3LLH6AG	PowerFLAT 5x6 WF	30	0.0076	0.0052	80	60	17
STL8DN10LF3	PowerFLAT 5x6 double island WF	100	0.05	0.035	7.8	4.3	20.5
STL8DN6LF3	PowerFLAT 5x6 double island WF	60	-	0.03	7.8	4.3	13
STL8DN6LF6AG	PowerFLAT 5x6 double island WF	60	0.031	0.027	9.6	32	27
STL8N10LF3	PowerFLAT 5x6 WF	100	0.05	0.035	7.8	4.3	20.5
STL8N6LF6AG	PowerFLAT 5x6 WF	60	0.031	0.027	32	55	27
STL92N10F7AG	PowerFLAT 5x6 WF	100	-	0.0095	16	5	45
STL9P4LF6AG	PowerFLAT 3.3x3.3	40	0.0035	0.0026	8	2.9	19
STN4NF06L	SOT-223	60	0.12	0.1	4	3.3	7
STP100NF04	TO-220	40	-	0.0046	120	300	110
STP120N4F6	TO-220	40	-	0.0043	80	110	65
STP141NF55	D2PAK	55	-	0.008	80	300	142
STP150NF04	TO-220	40	-	0.007	80	300	118
STP190N55LF3	TO-220	55	-	0.0037	120	312	60
STP315N10F7	TO-220	100	-	0.0027	180	315	180
STP36NF06L	TO-220	60	0.05	0.04	30	70	12
STP45N40DM2AG	TO-220	400	-	0.072	38	250	56
STP45N60DM2AG	TO-220	600	-	0.093	34	250	56

STP46NF30	TO-220	300	-	0.075	42	300	90
STP70NS04ZC	TO-220	33	-	0.011	80	180	58
STP76NF75	TO-220	75	-	0.011	80	300	117
STP80NF55-08	TO-220	55	-	0.008	80	300	115
STP95N4F3	TO-220	40	-	0.0062	80	110	40
STS5DNF60L	SO-8	60	-	0.045	4	2	15
STS5NF60L	SO-8	60	-	0.055	5	2.5	17
STS8DN6LF6AG	SO-8	60	0.026	0.024	8	3.2	27
STS8N6LF6AG	SO-8	60	0.026	0.024	8	3.2	27
STV270N4F3	PowerSO-10	40	-	0.0015	270	300	110
STW19NM60N	TO-247	600	-	0.285	13	110	35
STW22N95K5	TO-247	950	-	0.33	17.5	250	48
STW45N60DM2AG	TO-247	600	-	0.093	34	250	56
STW46NF30	TO-247	300	-	0.075	42	300	90
STW50N65DM2AG	TO-247	650	-	0.087	38	300	70
STW58N60DM2AG	TO-247	600	-	0.06	50	360	90
STW58N65DM2AG	TO-247	650	-	0.065	48	360	88
STW62N65M5	TO-247	650	-	0.049	46	330	142
STW65N65DM2AG	TO-247	650	-	0.05	60	446	120
STW68N65DM6-4AG	TO247-4	650	-	0.039	72	480	118
STW72N60DM2AG	TO-247	600	-	0.042	66	446	121
STW72N60DM6AG	TO-247	600	-	0.042	56	390	98
STW78N65M5	TO-247	650	-	0.032	69	450	203
STWA30N65DM6AG	TO-247 long leads	650	-	0.11	28	284	46
STWA32N65DM6AG	TO-247 long leads	650	-	0.097	37	320	52.6
STWA38N65DM6AG	TO-247 long leads	650	-	0.082	42	347	54.4
STWA46N65DM6AG	TO-247 long leads	650	-	0.063	50	391	82
STWA68N65DM6AG	TO-247 long leads	650	-	0.039	72	480	118
STD100N3LF3	DPAK	30	0.01	0.0055	80	110	20
STD130N4F6AG	DPAK	40	-	0.0036	80	143	80
STF40NF06	TO-220FP	60	-	0.028	23	30	32
STHU47N60DM6AG	HU3PAK	600	-	0.08	36	250	55

STLD125N4F6AG	PowerFLAT 5x6 Dual Side Cooling	40	0.0035	0.003	120	130	91
STLD200N4F6AG	PowerFLAT 5x6 Dual Side Cooling	40	0.002	0.0015	120	158	172
STLD257N4F7AG	PowerFLAT 5x6 Dual Side Cooling	40	0.002	0.0011	120	158	172

Automotive Analog and Power / Automotive Power Discretes/Automotive Power Schottky Diodes

Part Number	General Description	Package	Number of Diodes spec	Repetitive Peak Reverse Voltage (V) max	Average Rectified Current (A) max	V _F (V) max	VF measure condition (A) (@ I _F) spec	Reverse Current (mA) max	Non-Repet Peak Forward Surge Current (A) max	Junction Temperature (°C) max
BAT54-Y	Automotive 40 V, 300 mA General purpose Small Signal Schottky Diode	SOT-323, SOT23, SOT323	2	40	0.3	0.24	1.0E-4	0.001	1	150
STPS0540-Y	Automotive 40 V, 0.5 A Power Schottky Rectifier	SOD-123	1	40	0.5	0.5	0.5	0.04	5.5	150
STPS1045B-Y	Automotive 45 V, 10 A DPAK Power Schottky Rectifier	DPAK	1	45	10	0.63	10	0.1	75	175
STPS1150-Y	Automotive 150 V, 1 A Power Schottky Rectifier	SMA	1	150	1	0.67	1	0.001	50	175
STPS140-Y	Automotive 40 V, 1 A SOD-123 Power Schottky Rectifier	SMA,SMB	1	40	1	0.55	1	0.012	60	150
STPS140Z-Y	Automotive 40 V, 1 A SOD-123 Power Schottky Rectifier	SOD-123	1	40	1	0.55	1	0.04	5.5	150
STPS1545C-Y	Automotive 45 V, 15 A dual Power Schottky Rectifier	D2PAK	2	45	15	0.84	15	0.1	150	175
STPS15H100C-Y	Automotive 100 V, 15 A dual Power Schottky Rectifier	DPAK	2	100	15	0.71	15	0.003	75	175
STPS15L45C-Y	Automotive 45 V, 15 A dual Low Drop Power Schottky	DPAK	2	45	15	0.64	15	1	75	150
STPS160-Y	Automotive 60 V, 1 A Power Schottky Rectifier	SMA,SMB	1	60	1	0.57	1	4	75	150
STPS1H100-Y	Automotive 100 V, 1 A Power Schottky Rectifier	SMA,SMB	1	100	1	0.77	1	0.004	50	175
STPS1L40-Y	Automotive 40 V, 1 A Low Drop Power Schottky Rectifier	SMA,SMB,SOD123	1	40	1	0.42	1	0.035	60	150
STPS1L60-Y	Automotive 60V , 1 A Low Drop Power Schottky Rectifier	SOD123Flat	1	60	1	0.54	1	0.05	50	175
STPS200170TV1Y	Automotive 170 V, 200 A dual Power Schottky Rectifier	ISOTOP	2	170	200	0.85	100	0.2	700	150
STPS2045C-Y	Automotive 45 V, 20 A dual Power Schottky Rectifier	D2PAK	2	45	20	0.84	20	0.1	180	175
STPS20H100C-Y	Automotive 100 V, 20 A dual Power Schottky Rectifier	D2PAK	2	100	20	0.77	10	0.0045	3	175
STPS20L60C-Y	Automotive 60 V, 20 A dual Low Drop Power Schottky	D2PAK	2	60	20	0.7	20	0.35	220	150
STPS2545C-Y	Automotive 45 V, 25 A dual D ² PAK Power Schottky Rectifier	D2PAK	2	45	25	0.84	25	0.125	200	175
STPS2H100-Y	Automotive 100 V, 2 A SMA SMB Power Schottky Rectifier	SMA,SMB,SOD128	1	100	2	0.79	2	0.001	75	175
STPS2H100ZF-Y	Automotive 100 V, 2 A SOD123Flat Power Schottky Rectifier	SOD123Flat	1	100	2	0.7	2	0.5	50	175
STPS2L40ZF-Y	Automotive 40 V, 2 A Low Drop Power Schottky Rectifier	SOD123Flat	1	40	2	0.61	2	0.01	50	175
STPS2L60-Y	Automotive 60 V, 2A SMA Low Drop Power Schottky	SMA	1	60	2	0.55	2	0.1	75	150
STPS2L60ZF-Y	Automotive 60 V, 2 A SOD123Flat Low Drop Power Schottky	SOD123Flat	1	60	2	0.66	2	5.0E-5	50	175
STPS3045C-Y	Automotive 45 V, 30 A dual Power Schottky Rectifier	D2PAK	2	45	30	0.84	30	0.2	220	175
STPS3045DJF-Y	Automotive 45 V, 30 A Power Schottky Rectifier	PowerFLAT 5x6 WF	1	45	30	0.56	30	0.3	380	175
STPS30H60-Y	Automotive 60 V, 30 A Power Schottky Rectifier	D2PAK	2	60	30	0.57	15	0.06	230	175
STPS3150-Y	Automotive 150 V, 3 A Power Schottky Rectifier	SMB	1	150	3	0.67	3	0.002	100	175
STPS340-Y	Automotive 40 V, 3 A Power Schottky Rectifier	SMB,SMC	1	40	3	0.63	3	0.02	75	150
STPS360-Y	Automotive 60 V, 3 A Power Schottky Rectifier	SOD128 Flat	1	60	3	0.58	3	0.0015	60	175
STPS3H100-Y	Automotive 100 V, 3A Schottky Rectifier	SMB Flat	1	100	3	0.61	3	0.0015	79	175
STPS3H100AFY	Automotive 100 V, 3 A SOD128Flat Power Schottky Rectifier	SOD128 Flat	1	100	3	0.61	3	0.0015	79	175
STPS3L40-Y	Automotive 40 V, 3 A Low Drop Power Schottky Rectifier	SMC	1	40	3	0.5	3	0.1	75	150
STPS3L60-Y	Automotive 60 V, 3 A SMC Low Drop Power Schottky	SMC	1	60	3	0.65	3	0.055	75	150
STPS3L60U-Y	Automotive 60 V, 3 A SMB Low Drop Power Schottky	SMB	1	60	3	0.62	3	0.15	100	150
STPS40150C-Y	Automotive 150 V, 50 A power Schottky rectifier	D2PAK	2	150	40	0.92	20	0.015	250	175
STPS40170C-Y	Automotive 170 V, 40 A dual Power Schottky Rectifier	D2PAK	2	170	40	0.92	20	0.03	250	175
STPS4045C-Y	Automotive 45 V, 40 A dual Power Schottky Rectifier	TO-247	2	45	40	0.76	20	0.2	220	175
STPS40L45C-Y	Automotive 46 V, 40 A dual Low Drop Power Schottky	D2PAK	2	45	40	0.49	20	0.6	230	150
STPS41H100C-Y	Automotive 100 V, 40 A dual Power Schottky Rectifier	D2PAK,TO-220AB	2	100	40	0.8	20	0.01	220	175
STPS5H100-Y	Automotive 100 V, 5 A DPAK Power Schottky Rectifier	DPAK	1	100	5	0.79	5	0.035	75	175
STPS5H100AFY	Automotive 100 V, 5 A SOD128Flat Power Schottky Rectifier	SOD128 Flat	1	100	5	0.61	5	0.0035	130	175
STPS5L60-Y	Automotive 60 V, 5 A SMC Low Drop Power Schottky	SMC	1	60	5	0.48	5	0.22	150	150
STPS60L30C-Y	Automotive 30 V, 60 A dual Low Drop Power Schottky	PowerSO-20	2	30	60	0.49	30	2	250	150
STPS640C-Y	Automotive 40 V, 6 A dual Power Schottky Rectifier	DPAK	2	40	6	0.57	3	0.1	75	150
STPS8L30-Y	Automotive 30 V, 8 A Low Drop Power Schottky Rectifier	DPAK	1	30	8	0.4	0.4	1	75	150

Automotive Analog and Power / Automotive Power Discretes/Automotive Protection and Filtering

Part Number	General Description	Grade	Power (W) (10/1000µs @ 25°C) max	Package	Package size (mm)	Directionality	Number of protected lines	V _{RM} (V) max	Breakdown Voltage (V) min
DALC208SC6Y	Automotive low capacitance diode array for ESD protection	Automotive	-	SOT23-6L	2.8 x 1.5	Uni-Directional	4	1.2	1.2
DVIULC6-4SC6Y	Automotive ultra low capacitance ESD protection	Automotive	-	SOT23-6L	2.8 x 1.5	Uni-Directional	4	5	6
ECMF04-4HSM10Y	Automotive CMF with ESD protection and 2.2 GHz bandwidth in QFN-10L	Automotive	-	QFN-10L WF	2.6 x 1.35	Uni-Directional	4	3	6
ECMF04-4HSWM10Y	Automotive CMF with ESD protection and 3.5 GHz bandwidth in QFN-10L	Automotive	-	QFN-10L WF	2.6 x 1.35	Uni-Directional	4	3	4.5
ECMF4-2459A6M10Y	Automotive CMF with ESD protection and 9 GHz bandwidth in QFN-10L	Automotive	-	QFN-10L WF	2.6 x 1.35	Uni-Directional	4	5	5.3
EMIF02-02OABRY	Automotive low-pass filter and ESD protection for BroadR-Reach? in QFN	Automotive	-	QFN-6L WF	-	Bi-Directional	2	3	6
EMIF06-1005MX12Y	Automotive grade 6-line low capacitance EMI filter and ESD protection	Automotive	-	QFN-12L	3.00 x 1.35 x 0.75	Uni-Directional	6	3	6
ESDA041-1JY	Automotive single line 4 V TVS for BMS in SOD323	Automotive	-	SOD323	1.66 x 1.28 x 1.1	Uni-Directional	1	4	6.2
ESDA041-2W3Y	Automotive dual lines 4 V TVS for BMS in SOT323	Automotive	-	SOT323	1.66 x 1.26 x 1.2	Uni-Directional	2	4	6.2
ESDA051-1JY	Automotive single line 5V TVS in SOD323	Automotive	-	SOD323	1.66 x 1.28 x 1.1	Uni-Directional	1	5	6.2
ESDA14V2SC5Y	Automotive quad-line TVS for ESD protection	Automotive	-	SOT23-5L	2.8 x 1.5	Uni-Directional	4	12	14.2
ESDA14V2SC6Y	Automotive quad-line TVS for ESD protection	Automotive	-	SOT23-6L	2.8 x 1.5	Uni-Directional	4	-	14.2
ESDA25SC6Y	Automotive Quad-line TVS for ESD protection	Automotive	-	SOT23-6L	2.8 x 1.5	Uni-Directional	4	24	25
ESDA37WY	Automotive dual Transil™ array for ESD protection	Automotive	-	SOT323	2 x 1.25 x 0.95	Uni-Directional	2	36	37
ESDA5V3SC6Y	Automotive quad-line TVS for ESD protection	Automotive	-	SOT23-6L	2.8 x 1.5	Uni-Directional	4	3	5.3
ESDA6V1-5SC6Y	Automotive 5-line 5.2 V TVS in SOT23-6L	Automotive	-	SOT23-6L	2.8 x 1.5	Uni-Directional	5	5.2	6.1
ESDA6V1SC6Y	Automotive quad-line TVS for ESD protection	Automotive	-	SOT23-6L	2.8 x 1.5	Uni-Directional	4	5.2	6.1
ESDALC5-1BT2Y	Automotive 5 V TVS in 0402	Automotive	-	SOD-882	1.0 x 0.6 x 0.5	Bi-Directional	1	5	5.8
ESDALY	Automotive dual Transil™ array for ESD protection	Automotive, Industrial	-	SOT 23, SOT-23, SOT23-3L	2.8 x 1.5	Uni-Directional	2	12,24,3,5,25	14.2,25,5,25,5.3
ESDAVLC6-2BLY	Automotive dual-line Transil, transient voltage suppressor (TVS)	Automotive	-	SOT23-3L	2.8 x 1.5	Bi-Directional	2	5	7
ESDAVLC8-1BT2Y	Automotive 3 V TVS in 0402	Automotive	-	SOD-882	1.0 x 0.6 x 0.5	Bi-Directional	1	3	8
ESDAXLC6-1BT2Y	Automotive 3 V extra low capacitance TVS in 0402	Automotive	-	SOD-882	1.0 x 0.6 x 0.5	Bi-Directional	1	3	6
ESDCAN01-2BLY	Automotive dual-line TVS in SOT23-3L for CAN bus (12 V system)	Automotive	-	SOT23-3L	2.8 x 1.5	Bi-Directional	2	24	25
ESDCAN02-2BWY	Automotive dual-line TVS in SOT323-3L for CAN bus (12 V system)	Automotive	-	SOT323	1.8 x 1.15 x 0.8	Bi-Directional	2	26.5	28.5
ESDCAN03-2BM3Y	Automotive dual-line TVS in DFN for CAN bus protection (12 V system)	Automotive	-	QFN-3L WF	1.1 x 1.0	Bi-Directional	2	24	28
ESDCAN03-2BWY	Automotive dual-line TVS in SOT323-3L for CAN bus (12 V system)	Automotive	-	SOT323	1.8 x 1.15 x 0.8	Bi-Directional	2	24	26.5
ESDCAN04-2BLY	Automotive dual-line TVS in SOT23-3L for CAN bus (12 V system)	Automotive	-	SOT-23	2.8 x 1.5	Bi-Directional	2	25.5	27.5
ESDCAN04-2BWY	Automotive dual-line TVS in SOT323-3L for CAN bus (12 V system)	Automotive	-	SOT323	1.8 x 1.15 x 0.8	Bi-Directional	2	25.5	27.5
ESDCAN05-2BWY	Automotive dual-line TVS in SOT323-3L for CAN bus (24 V system)	Automotive	-	SOT323	1.8 x 1.15 x 0.8	Bi-Directional	2	36	39
ESDCAN06-2BLY	Automotive dual-line TVS in SOT23-3L for CAN bus (24 V system)	Automotive	-	SOT-23	2.8 x 1.5	Bi-Directional	2	35	38
ESDCAN06-2BWY	Automotive dual-line TVS in SOT323-3L for CAN bus (24 V system)	Automotive	-	SOT323	1.8 x 1.15 x 0.8	Bi-Directional	2	35	38
ESDCAN24-2BLY	Automotive dual-line TVS in SOT23-3L for CAN bus (12 V system)	Automotive	-	SOT23-3L	2.8 x 1.5	Bi-Directional	2	24	27
ESDLIN03-1BWY	Automotive 26.5 V TVS for LIN bus in SOT323-3L	Automotive	-	SOT323	1.8 x 1.15 x 0.8	Bi-Directional	1	26.5	28.5
ESDLIN1524BJ	Automotive single line ESD protection for LIN bus in SOD323	Automotive	-	SOD323	1.66 x 1.28, 1.66 x	Bi-Directional	1	24	25.4
HDMIULC6-4SC6Y	Automotive ultra large bandwidth ESD protection	Automotive	-	SOT23-6L	2.8 x 1.5	Uni-Directional	4	5	6
HSP051-2W3Y	Automotive 2-line ESD protection for high speed lines	Automotive	-	SOT323	1.8 x 1.15 x 0.8	Uni-Directional	2	5	5
HSP061-4M10Y	Automotive 4-line ESD protection for high speed lines	Automotive	-	QFN-10L	2.5 x 1.0	Uni-Directional	4	3	6
HSP181-2W3Y	Automotive grade 18V dual-line high speed port protection	Automotive	-	SOT323	2 x 1.25 x 0.95	Uni-Directional	2	18	21.5
LDP01-26AY	Automotive 22 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	22	24.4
LDP01-28AY	Automotive 24 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	24	26.7
LDP01-30AY	Automotive 27 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	27	28.9
LDP01-33AY	Automotive 28 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	28	31.1
LDP01-35AY	Automotive 30 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	30	33.3
LDP01-39AY	Automotive 33 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	33	36.7
LDP01-42AY	Automotive 36 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	36	40
LDP01-47AY	Automotive 40 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	40	44.4

LDP01-50AY	Automotive 43 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	43	47.8
LDP01-56AY	Automotive 48 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	48	53.3
LDP01-68AY	Automotive 58 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	58	64.4
LDP01-82AY	Automotive 70 V TVS for load dump in D2PAK	Automotive	5000	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	70	77.8
LDP24A	24 V TVS for load dump in R6	Industrial	5000	R6	8.85 x 8.85	Uni-Directional	1	24	25
LDP35CA	35 V TVS for load dump in R6	Industrial	5000	R6	8.85 x 8.85	Bi-Directional	1	35	36
RBO40	REVERSED BATTERY AND OVERVOLTAGE PROTECTION CIRCUIT (RBO)	Industrial	1500	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	20	24
SM15T10AY	Automotive 1500 W, 8.55 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	8.55	9.5
SM15T10CAY	Automotive 1500 W, 8.55 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	8.55	9.5
SM15T12AY	Automotive 1500 W, 10.2 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	10.2	11.4
SM15T12CAY	Automotive 1500 W, 10.2 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	10.2	11.4
SM15T15AY	Automotive 1500 W, 12.8 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	12.8	14.3
SM15T15CAY	Automotive 1500 W, 12.8 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	12.8	14.3
SM15T18AY	Automotive 1500 W, 15.3 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	15.3	17.1
SM15T18CAY	Automotive 1500 W, 15.3 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	15.3	17.1
SM15T22AY	Automotive 1500 W, 18.8 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	18.8	20.9
SM15T22CAY	Automotive 1500 W, 18.8 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	18.8	20.9
SM15T24AY	Automotive 1500 W, 20.5 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	20.5	22.8
SM15T24CAY	Automotive 1500 W, 20.5 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	20.5	22.8
SM15T27AY	Automotive 1500 W, 23.1 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	23.1	25.7
SM15T27CAY	Automotive 1500 W, 23.1 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	23.1	25.7
SM15T30AY	Automotive 1500 W, 25.6 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	25.6	28.5
SM15T30CAY	Automotive 1500 W, 25.6 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	25.6	28.5
SM15T33AY	Automotive 1500 W, 28.2 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	28.2	31.4
SM15T33CAY	Automotive 1500 W, 28.2 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	28.2	31.4
SM15T36AY	Automotive 1500 W, 30.8 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	30.8	34.2
SM15T36CAY	Automotive 1500 W, 30.8 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	30.8	34.2
SM15T39AY	Automotive 1500 W, 33.3 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	33.3	37.1
SM15T39CAY	Automotive 1500 W, 33.3 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	33.3	37.1
SM15T47AY	Automotive 1500 W, 40.2 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	40.2	44.7
SM15T47CAY	Automotive 1500 W, 40.2 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	40.2	44.7
SM15T56AY	Automotive 1500 W, 48 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	48	53.3
SM15T56CAY	Automotive 1500 W, 48 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	48	53.3
SM15T68AY	Automotive 1500 W, 58.1 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	58.1	64.6
SM15T68CAY	Automotive 1500 W, 58.1 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	58.1	64.6
SM15T6V8AY	Automotive 1500 W, 5.8 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	5.8	6.45
SM15T6V8CAY	Automotive 1500 W, 5.8 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	5.8	6.45
SM15T75AY	Automotive 1500 W, 64.1 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	64.1	71.3
SM15T75CAY	Automotive 1500 W, 64.1 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	64.1	71.3
SM15T7V5AY	Automotive 1500 W, 6.4 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	6.4	7.13
SM15T7V5CAY	Automotive 1500 W, 6.4 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	6.4	7.13
SM15T82AY	Automotive 1500 W, 70 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Uni-Directional	1	70	77.8
SM15T82CAY	Automotive 1500 W, 70 V TVS in SMC	Automotive	1500	SMC	8 x 5.9 x 2.3	Bi-Directional	1	70	77.8
SM30T100AY	Automotive 3000 W, 85 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	85	95
SM30T100CAY	Automotive 3000 W, 85 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	85	95
SM30T10AY	Automotive 3000 W, 8.5 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	8.5	9.4
SM30T10CAY	Automotive 3000 W, 8.5 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	8.5	9.4
SM30T117AY	Automotive 3000 W, 100 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	100	111
SM30T117CAY	Automotive 3000 W, 100 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	100	111
SM30T12AY	Automotive 3000 W, 10 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	10	11.1
SM30T12CAY	Automotive 3000 W, 10 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	10	11.1
SM30T152AY	Automotive 3000 W, 130 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	130	144

SM30T152CAY	Automotive 3000 W, 130 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	130	144
SM30T15AY	Automotive 3000 W, 13 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	13	14.4
SM30T15CAY	Automotive 3000 W, 13 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	13	14.4
SM30T180AY	Automotive 3000 W, 154 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	154	171
SM30T180CAY	Automotive 3000 W, 154 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	154	171
SM30T18AY	Automotive 3000 W, 15 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	15	16.7
SM30T18CAY	Automotive 3000 W, 15 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	15	16.7
SM30T19AY	Automotive 3000 W, 16 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	16	17.8
SM30T19CAY	Automotive 3000 W, 16 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	16	17.8
SM30T200AY	Automotive 3000 W, 170 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	170	190
SM30T200CAY	Automotive 3000 W, 170 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	170	190
SM30T21AY	Automotive 3000 W, 18 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	18	20
SM30T21CAY	Automotive 3000 W, 18 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	18	20
SM30T220AY	Automotive 3000 W, 188 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	188	209
SM30T220CAY	Automotive 3000 W, 188 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	188	209
SM30T23AY	Automotive 3000 W, 20 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	20	22.2
SM30T23CAY	Automotive 3000 W, 20 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	20	22.2
SM30T26AY	Automotive 3000 W, 22 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	22	24.4
SM30T26CAY	Automotive 3000 W, 22 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	22	24.4
SM30T28AY	Automotive 3000 W, 24 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	24	26.7
SM30T28CAY	Automotive 3000 W, 24 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	24	26.7
SM30T30AY	Automotive 3000 W, 26 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	26	28.9
SM30T30CAY	Automotive 3000 W, 26 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	26	28.9
SM30T33AY	Automotive 3000 W, 28 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	28	31.1
SM30T33CAY	Automotive 3000 W, 28 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	28	31.1
SM30T35AY	Automotive 3000 W, 30 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	30	33.3
SM30T35CAY	Automotive 3000 W, 30 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	30	33.3
SM30T39AY	Automotive 3000 W, 33 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	33	36.7
SM30T39CAY	Automotive 3000 W, 33 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	33	36.7
SM30T42AY	Automotive 3000 W, 36 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	36	40
SM30T42CAY	Automotive 3000 W, 36 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	36	40
SM30T47AY	Automotive 3000 W, 40 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	40	44.4
SM30T47CAY	Automotive 3000 W, 40 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	40	44.4
SM30T56AY	Automotive 3000 W, 48 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	48	53.2
SM30T56CAY	Automotive 3000 W, 48 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	48	53.2
SM30T6.8AY	Automotive 3000 W, 5 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	5	6.4
SM30T6.8CAY	Automotive 3000 W, 5 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	5	6.4
SM30T68AY	Automotive 3000 W, 58 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	-	64.6
SM30T68CAY	Automotive 3000 W, 58 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	-	64.6
SM30T7.5AY	Automotive 3000 W, 6.5 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	6.5	7.2
SM30T7.5CAY	Automotive 3000 W, 6.5 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	6.5	7.2
SM30T75AY	Automotive 3000 W, 64 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	64	71.3
SM30T75CAY	Automotive 3000 W, 64 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	64	71.3
SM30T82AY	Automotive 3000 W, 70 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Uni-Directional	1	-	77.9
SM30T82CAY	Automotive 3000 W, 70 V TVS in SMC	Automotive	3000	SMC	8 x 5.9 x 2.3	Bi-Directional	1	-	77.9
SM4T10AY	Automotive 400 W, 8.5 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	8.5	9.4
SM4T10CAY	Automotive 400 W, 8.5 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	8.5	9.4
SM4T12AY	Automotive 400 W, 10 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	10	11.1
SM4T12CAY	Automotive 400 W, 10 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	10	11.1
SM4T14AY	Automotive 400 W, 12 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	12	13.3
SM4T14CAY	Automotive 400 W, 12 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	12	13.3
SM4T15AY	Automotive 400 W, 13 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	13	14.4

SM4T15CAY	Automotive 400 W, 13 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	13	14.4
SM4T18AY	Automotive 400 W, 15 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	15	16.7
SM4T18CAY	Automotive 400 W, 15 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	15	16.7
SM4T21AY	Automotive 400 W, 18 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	18	20
SM4T21CAY	Automotive 400 W, 18 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	18	20
SM4T23AY	Automotive 400 W, 20 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	20	22.2
SM4T23CAY	Automotive 400 W, 20 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	20	22.2
SM4T26AY	Automotive 400 W, 22 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	22	24.4
SM4T26CAY	Automotive 400 W, 22 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	22	24.4
SM4T28AY	Automotive 400 W, 24 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	24	26.7
SM4T28CAY	Automotive 400 W, 24 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	24	26.7
SM4T30AY	Automotive 400 W, 26 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	26	28.9
SM4T30CAY	Automotive 400 W, 26 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	26	28.9
SM4T33AY	Automotive 400 W, 28 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	28	31.1
SM4T33CAY	Automotive 400 W, 28 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	28	31.1
SM4T35AY	Automotive 400 W, 30 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	30	33.3
SM4T35CAY	Automotive 400 W, 30 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	30	33.3
SM4T39AY	Automotive 400 W, 33 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	33	36.7
SM4T39CAY	Automotive 400 W, 33 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	33	36.7
SM4T47AY	Automotive 400 W, 40 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	40	44.4
SM4T47CAY	Automotive 400 W, 40 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	40	44.4
SM4T50AY	Automotive 400 W, 43 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	43	47.8
SM4T50CAY	Automotive 400 W, 43 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	43	47.8
SM4T56AY	Automotive 400 W, 48 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	48	53.3
SM4T56CAY	Automotive 400 W, 48 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	48	53.3
SM4T68AY	Automotive 400 W, 58 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	58	64.4
SM4T68CAY	Automotive 400 W, 58 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	58	64.4
SM4T6V7AY	Automotive 400 W, 5 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	5	6.4
SM4T6V7CAY	Automotive 400 W, 5 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	5	6.4
SM4T7V6AY	Automotive 400 W, 6.5 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	6.5	7.2
SM4T7V6CAY	Automotive 400 W, 6.5 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	6.5	7.2
SM4T82AY	Automotive 400 W, 70 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	70	77.8
SM4T82CAY	Automotive 400 W, 70 V TVS in SMA	Automotive	400	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	70	77.8
SM6F10AY	Automotive 600 W, 10 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	10	11.1
SM6F11AY	Automotive 600 W, 11 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	11	12.3
SM6F12AY	Automotive 600 W, 12 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	12	13.3
SM6F13AY	Automotive 600 W, 13 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	13	14.4
SM6F14AY	Automotive 600 W, 14 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	14	15.7
SM6F15AY	Automotive 600 W, 15 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	15	16.7
SM6F16AY	Automotive 600 W, 16 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	16	17.9
SM6F18AY	Automotive 600 W, 18 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	18	20
SM6F20AY	Automotive 600 W, 20 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	20	22.2
SM6F22AY	Automotive 600 W, 22 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	22	24.4
SM6F23AY	Automotive 600 W, 23 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	23	25.7
SM6F24AY	Automotive 600 W, 24 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	24	26.7
SM6F26AY	Automotive 600 W, 26 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	26	28.9
SM6F28AY	Automotive 600 W, 28 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	28	31.1
SM6F30AY	Automotive 600 W, 30 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	30	33.2
SM6F31AY	Automotive 600 W, 31 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	31	34.2
SM6F33AY	Automotive 600 W, 33 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	33	36.7
SM6F36AY	Automotive 600 W, 36 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	36	40
SM6F5.0AY	Automotive 600 W, 5 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	5	6.4

SM6F6.0AY	Automotive 600 W, 6 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	6	6.7
SM6F6.5AY	Automotive 600 W, 6.5 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	6.5	7.2
SM6F8.5AY	Automotive 600 W, 8.5 V TVS in SOD128 Flat	Automotive	600	SOD128 Flat	4.7 x 2.4 x 0.98	Uni-Directional	1	8.5	9.4
SM6T10AY	Automotive 600 W, 8.55 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	8.55	9.5
SM6T10CAY	Automotive 600 W, 8.55 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	8.55	9.5
SM6T12AY	Automotive 600 W, 10.2 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	10.2	11.4
SM6T12CAY	Automotive 600 W, 10.2 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	10.2	11.4
SM6T15AY	Automotive 600 W, 12.8 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	12.8	14.3
SM6T15CAY	Automotive 600 W, 12.8 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	12.8	14.3
SM6T16V5AY	Automotive 600 W, 14.1 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	14.1	15.7
SM6T16V5CAY	Automotive 600 W, 14.1 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	14.1	15.7
SM6T18AY	Automotive 600 W, 15.3 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	15.3	17.1
SM6T18CAY	Automotive 600 W, 15.3 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	15.3	17.1
SM6T22AY	Automotive 600 W, 18.8 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	18.8	20.9
SM6T22CAY	Automotive 600 W, 18.8 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	18.8	20.9
SM6T24AY	Automotive 600 W, 20.5 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	20.5	22.8
SM6T24CAY	Automotive 600 W, 20.5 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	20.5	22.8
SM6T250CAY	Automotive 600 W, 213 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	213	237
SM6T27AY	Automotive 600 W, 23.1 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	23.1	25.7
SM6T27CAY	Automotive 600 W, 23.1 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	23.1	25.7
SM6T30AY	Automotive 600 W, 25.6 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	25.6	28.5
SM6T30CAY	Automotive 600 W, 25.6 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	25.6	28.5
SM6T33AY	Automotive 600 W, 28.2 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	28.2	31.4
SM6T33CAY	Automotive 600 W, 28.2 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	28.2	31.4
SM6T36AY	Automotive 600 W, 30.8 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	30.8	34.2
SM6T36CAY	Automotive 600 W, 30.8 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	30.8	34.2
SM6T39AY	Automotive 600 W, 33.3 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	33.3	37.1
SM6T39CAY	Automotive 600 W, 33.3 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	33.3	37.1
SM6T42AY	Automotive 600 W, 36 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	36	40
SM6T42CAY	Automotive 600 W, 36 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	36	40
SM6T47AY	Automotive 600 W, 40 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	40	44
SM6T47CAY	Automotive 600 W, 40 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	40	44
SM6T56AY	Automotive 600 W, 47.6 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	47.6	53.2
SM6T56CAY	Automotive 600 W, 47.6 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	47.6	53.2
SM6T68AY	Automotive 600 W, 58.1 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	58.1	64.6
SM6T68CAY	Automotive 600 W, 58.1 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	58.1	64.6
SM6T6V8AY	Automotive 600 W, 5.8 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	5.8	6.45
SM6T6V8CAY	Automotive 600 W, 5.8 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	5.8	6.45
SM6T75AY	Automotive 600 W, 64.1 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	64.1	71.3
SM6T75CAY	Automotive 600 W, 64.1 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	64.1	71.3
SM6T7V5AY	Automotive 600 W, 6.4 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	6.4	7.13
SM6T7V5CAY	Automotive 600 W, 6.4 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	6.4	7.13
SM6T82AY	Automotive 600 W, 70 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Uni-Directional	1	70	77.8
SM6T82CAY	Automotive 600 W, 70 V TVS in SMB	Automotive	600	SMB	5.3 x 3.6 x 2.3	Bi-Directional	1	70	77.8
SMA6T10AY	Automotive 600 W, 8.6 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	8.6	9.5
SMA6T10CAY	Automotive 600 W, 8.6 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	8.6	9.5
SMA6T12AY	Automotive 600 W, 10.2 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	10.2	11.4
SMA6T12CAY	Automotive 600 W, 10.2 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	10.2	11.4
SMA6T14AY	Automotive 600 W, 12 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	12	13.3
SMA6T14CAY	Automotive 600 W, 12 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	12	13.3
SMA6T15AY	Automotive 600 W, 12.8 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	12.8	14.3
SMA6T15CAY	Automotive 600 W, 12.8 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	12.8	14.3

SMA6T18AY	Automotive 600 W, 15.3 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	15.3	17.1
SMA6T18CAY	Automotive 600 W, 15.3 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	15.3	17.1
SMA6T22AY	Automotive 600 W, 18.8 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	18.8	20.9
SMA6T22CAY	Automotive 600 W, 18.8 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	18.8	20.9
SMA6T24AY	Automotive 600 W, 20.5 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	20.5	22.8
SMA6T24CAY	Automotive 600 W, 20.5 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	20.5	22.8
SMA6T28AY	Automotive 600 W, 24 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	24	26.7
SMA6T28CAY	Automotive 600 W, 24 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	24	26.7
SMA6T30AY	Automotive 600 W, 25.6 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	25.6	28.5
SMA6T30CAY	Automotive 600 W, 25.6 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	25.6	28.5
SMA6T33AY	Automotive 600 W, 28.2 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	28.2	31.4
SMA6T33CAY	Automotive 600 W, 28.2 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	28.2	31.4
SMA6T36AY	Automotive 600 W, 30.8 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	30.8	34.2
SMA6T36CAY	Automotive 600 W, 30.8 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	30.8	34.2
SMA6T39AY	Automotive 600 W, 33.3 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	33.3	37.1
SMA6T39CAY	Automotive 600 W, 33.3 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	33.3	37.1
SMA6T47AY	Automotive 600 W, 40 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	40	44.4
SMA6T47CAY	Automotive 600 W, 40 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	40	44.4
SMA6T56AY	Automotive 600 W, 47.6 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	47.6	53.2
SMA6T56CAY	Automotive 600 W, 47.6 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	47.6	53.2
SMA6T68AY	Automotive 600 W, 58.1 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	58.1	64.6
SMA6T68CAY	Automotive 600 W, 58.1 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	58.1	64.6
SMA6T6V7AY	Automotive 600 W, 5 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	5	6.4
SMA6T6V7CAY	Automotive 600 W, 5 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	5	6.4
SMA6T7V6AY	Automotive 600 W, 6.5 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	6.5	7.2
SMA6T7V6CAY	Automotive 600 W, 6.5 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	6.5	7.2
SMA6T82AY	Automotive 600 W, 70 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Uni-Directional	1	70	77.8
SMA6T82CAY	Automotive 600 W, 70 V TVS in SMA	Automotive	600	SMA	5.08 x 2.57 x 2.17	Bi-Directional	1	70	77.8
USBLC6-2SC6Y	Automotive very low capacitance ESD protection	Automotive	-	SOT23-6L	2.8 x 1.5	Uni-Directional	2	5.25	6
USBLC6-4SC6Y	Automotive very low capacitance ESD protection	Automotive	-	SOT23-6L	2.8 x 1.5	Uni-Directional	4	5.25	6
RBO08	REVERSED BATTERY AND OVERVOLTAGE PROTECTION CIRCUIT (RBO)	Industrial	600	D2PAK	15.4 x 10.1 x 4.45	Uni-Directional	1	20	24

Automotive Analog and Power / Automotive Power Discretes/Automotive SiC Diodes

Part Number	General Description	Package	Number of Diodes spec	Repetitive Peak Reverse Voltage (V) max	Average Rectified Current (A) max	V _F (V) max	VF measure condition (A) (@ I _F) spec	Reverse Current (mA) max	Total capacitive charge (nC)	Non-Repeat Peak Forward Surge Current (A) max	Junction Temperature (°C) max
STPSC10065-Y	Automotive 650 V, 10 A SiC Power Schottky Diode	D2PAK,TO-220AC	1	650	10	1.45	10	0.13	34	48	175
STPSC10H065-Y	Automotive 650V, 10 A Silicon Carbide diode	D2PAK,TO-220AC	1	650	10	1.75	10	0.1	28.5	90	175
STPSC10H12-Y	Automotive 1200 V, 10 A Silicon Carbide Power Schottky Diode	D2PAK,TO-220AC	1	1200	10	1.5	10	0.06	57	71	175
STPSC12065-Y	Automotive 650 V, TO-220 D2PAK SiC Power Schottky Diode	D2PAK,D2PAK HV,TO-220AC	1	650	12	1.45	12	0.15	36	50	175
STPSC12C065-Y	Automotive 650 V, 12 A SiC Power Schottky Diode	TO-220AC	1	650	12	1.75	12	0.12	29.3	470	175
STPSC20065-Y	Automotive 650 V, 20 A SiC Power Schottky Diode	D2PAK,DO-247,TO-220AC	1	650	20	1.45	20	0.3	62	90	175
STPSC20H065C-Y	Automotive 650 V, 20 A High Surge Silicon Carbide Power Schottky Diode	TO-220AB,TO-247	2	650	20	1.75	10	0.1	28.5	90	175
STPSC20H12-Y	Automotive 1200 V, 20 A Silicon Carbide Diode	D2PAK,D2PAK HV,TO-220AC	1	1200	20	1.5	20	0.12	129	140	175
STPSC20H12CWY	20 A 1200 V power Schottky silicon carbide diode	HIP247	2	1200	20	1.5	10	0.06	57	71	175
STPSC40065C-Y	Automotive 650 V, 40 A dual SiC Power Schottky Diode	TO-247	2	650	40	1.45	20	0.3	62	90	175
STPSC6C065-Y	Automotive 650 V, 6 A SiC Power Schottky Diode	TO-220AC	1	650	6	1.75	6	0.06	15.2	375	175
STPSC12H065-Y	Automotive 650 V, 12 A High Surge Silicon Carbide Power Schottky Diode	TO-220AC	1	650	12	1.75	12	0.12	36	100	175
STPSC15H12-Y	Automotive 1200 V, 15 A Silicon Carbide Diode	TO-220AC	1	1200	15	1.5	15	0.09	94	105	175
STPSC8065-Y	Automotive 650 V, 8 A SiC Power schottky Diode	TO-220AC	1	650	8	1.45	8	0.105	28	46	175

Automotive Analog and Power / Automotive Power Discretes/Automotive SiC MOSFETs

Part Number	Package	Grade	VDSS (V) nom	Drain Current (Dc) (A) max	P _{TOT} (W) max	Q _g (nC) typ
SCT011H75G3AG	H2PAK-7	Automotive	750	110	652	144
SCT012H90G3AG	H2PAK-7	Automotive	900	110	625	138
SCT012W90G3AG	HIP247	Automotive	900	110	625	138
SCT015W120G3-4AG	HiP247-4	Automotive	1200	129	673	167
SCT018H65G3AG	H2PAK-7	Automotive	650	55	385	79.4
SCT020H120G3AG	H2PAK-7	Automotive	1200	100	281	121
SCT020W120G3-4AG	HiP247-4	Automotive	1200	100	547	121
SCT025H120G3AG	H2PAK-7	Automotive	1200	55	375	73
SCT025W120G3-4AG	HiP247-4	Automotive	1200	56	388	73
SCT027H65G3AG	H2PAK-7	Automotive	650	60	300	48.6
SCT027W65G3-4AG	HiP247-4	Automotive	650	60	313	51
SCT040H120G3AG	H2PAK-7	Automotive	1200	40	300	54
SCT040H65G3AG	H2PAK-7	Automotive	650	30	221	39.5
SCT040HU65G3AG	HU3PAK	Automotive	650	30	221	39.5
SCT040W120G3-4AG	HiP247-4	Automotive	1200	40	312	56
SCT040W120G3AG	HIP247	Automotive	1200	40	312	56
SCT055H65G3AG	H2PAK-7	Automotive	650	30	185	29
SCT055HU65G3AG	HU3PAK	Automotive	650	30	185	29
SCT055W65G3-4AG	HiP247-4	Automotive	650	30	210	32
SCT070H120G3AG	H2PAK-7	Automotive	1200	30	223	37
SCT070HU120G3AG	HU3PAK	Automotive	1200	30	223	37
SCT070W120G3-4AG	HiP247-4	Automotive	1200	30	236	41
SCT070W120G3AG	HIP247	Automotive	1200	30	236	41
SCT1000N170AG	HIP247	Automotive	1700	7	96	13.3
SCT10N120AG	HIP247	Automotive	1200	12	150	22
SCT20N120AG	HIP247	Automotive	1200	20	153	45
SCT20N170AG	HIP247	Automotive	1700	43	313	101
SCTH100N120G2-AG	H2PAK-7	Automotive	1200	75	484	163
SCTH100N65G2-7AG	H2PAK-7	Automotive	650	95	360	162
SCTH35N65G2V-7AG	H2PAK-7	Automotive	650	45	208	73

SCTH40N120G2V7AG	H2PAK-7	Automotive	1200	33	250	63
SCTHS200N120G3AG	STPAK	Automotive	1200	170	875	253
SCTHS250N65G3	STPAK	Automotive,Industrial	650	237	795	208
SCTHS300N75G3AG	STPAK	Automotive	750	300	972	303
SCTW100N120G2AG	HIP247	Automotive	1200	75	565	163
SCTW100N65G2AG	HIP247	Automotive	650	100	420	162
SCTW35N65G2VAG	HIP247	Automotive	650	45	240	73
SCTW40N120G2VAG	HIP247	Automotive	1200	33	290	63
SCTW60N120G2AG	HIP247	Automotive	1200	52	388	101
SCTWA40N120G2AG	HIP247 long	Automotive	1200	33	290	63
SCTWA40N12G24AG	HiP247-4	Automotive	1200	33	290	63
SCTWA60N120G2AG	HIP247 long	Automotive	1200	52	388	101
SCTWA60N12G2-4AG	HiP247-4	Automotive	1200	52	388	101

Automotive Analog and Power / Automotive Power Discretes/Automotive Thyristors (SCRs)

Part Number	General Description	Package	RMS on-state current (A) max	Repetitive peak off-state voltage (V) max	Non repetitive surge peak on-state current (A) max	Junction Temperature (°C) max	Triggering gate current max (mA)	Rising Ratio Of Off Voltage (V/μs) (@ T _{J(max)}) min
STTD6050H-12M2Y	60 A 1200 V half-controlled bridge rectifier in ACEPACK SMIT module	ACEPACK SMIT	60	1200	500	150	50	1000
STTN6050H-12M1Y	60 A 1200 V thyristor controlled half bridge in ACEPACK SMIT module	ACEPACK SMIT	60	1200	600	150	50	1000
TN3050H-12GY-TR	1200 V, 30 A Automotive Grade AEC-Q101 SCR Thyristor	D2PAK	30	1200	300	150	50	1000
TN3050H-12WY	1200 V, 30 A Automotive Grade AEC-Q101 SCR Thyristor	TO-247	30	1200	300	150	50	1000
TN3050HP-12L2Y	30 A 1200 V automotive grade SCR Thyristor in HU3PAK package	HU3PAK	30	1200	300	150	50	1000
TN4050HA-12GY	1200 V , 40 A Automotive SCR Thyristor in D2PAK package	D2PAK	40	1200	400	150	50	1000
TN4050HP-12G2YTR	1200 V, 40 A Automotive Grade AEC-Q101 SCR Thyristor in D2PAK HV package	H2PAK-2	40	1200	1400	150	50	1000
TN4050HP-12GY-TR	1200 V, 40 A Automotive Grade SCR Thyristor in D2PAK package	D2PAK	40	1200	400	150	50	1000
TN4050HP-12L2Y	1200 V, 40 A Automotive Grade AEC-Q101 SCR Thyristor in HU3PAK	HU3PAK	40	1200	1400	150	50	1000
TN4050HP-12WY	1200 V, 40 A Automotive Grade AEC-Q101 SCR Thyristor	TO-247	40	1200	1400	150	50	1000
TN5050H-12WY	1200 V, 50 A Automotive Grade AEC-Q101 SCR Thyristor	TO-247	50	1200	580	150	50	1000
TN6050HP-12WY	1200 V, 60 A Automotive Grade AEC-Q101 SCR Thyristor	TO-247	60	1200	600	150	50	1000
TN4035HA-8GY	800 V , 40 A Automotive SCR Thyristor in D2PAK package	D2PAK	40	800	600	150	50	1000

Automotive Analog and Power / Automotive Power Discretes/Automotive Ultrafast Diodes

Part Number	General Description	Package	Number of Diodes spec	Repetitive Peak Reverse Voltage (V) max	Average Rectified Current (A) max	V _r (V) max	Reverse Current (mA) max	Reverse Recovery Time (ns) max	Non-Repet Peak Forward Surge Current (A) max	Junction Temperature (°C) max
STTH1002C-Y	Automotive 200 V, 10 A dual Ultrafast Diode	D2PAK, DPAK	2	200	10	1.1	0.005	25	50	175
STTH1003S-Y	Automotive 300 V, 10 A Ultrafast Diode	DPAK	1	300	10	1.3	0.1	35	100	175
STTH102-Y	Automotive 200 V, 1 A Ultrafast Diode	SMA	1	200	1	0.97	0.001	20	40	175
STTH110-Y	Automotive 1000 V, 1 A Ultrafast Diode	SMB Flat	1	1000	1	1.7	0.005	75	20	175
STTH112-Y	Automotive 1200 V, 1 A Ultrafast Diode	SMB Flat	1	1200	1	1.9	0.005	75	18	175
STTH1210-Y	Automotive 1000 V, 12 A Ultrafast Diode	TO-220AC	1	1000	12	1.7	0.01	65	80	175
STTH1512-Y	Automotive 1200 V, 15 A Ultrafast Diode	D2PAK	1	1200	15	2.1	0.015	75	200	175
STTH15RQ06-Y	Automotive 600 V, 15 A Turbo 2 Soft Ultrafast Recovery Diode	D2PAK, D2PAK HV, DO-247, TO-220AC	1	600	15	1.85	0.02	25	120	175
STTH16L06C-Y	Automotive 600 V, 16 A dual Low Drop Ultrafast Diode	D2PAK, TO-220AB	2	600	16	1.35	0.008	35	120	175
STTH1L06-Y	Automotive 600 V, 1 A Low Drop Ultrafast Diode	SMB Flat	1	600	1	1.4	0.001	60	20	175
STTH1R02-Y	Automotive 200 V, 1 A SOD123 Flat Ultrafast Diode	SOD123 Flat	1	200	1	0.85	5.0E-4	32	25	175
STTH1R04-Y	Automotive 400 V, 1 A Ultrafast Diode	SMA, SMB	1	400	1	0.9	0.05	20	30	175
STTH1R06-Y	Automotive 600 V, 1 A Turbo 2 Ultrafast Diode	SMB Flat	1	600	1	1.9	0.001	45	17	175
STTH2003C-Y	Automotive 300 V, 20 A dual Ultrafast Diode	D2PAK	2	300	20	1	0.02	230	110	175
STTH208-Y	Automotive 800 V, 2 A Ultrafast Diode	SMB Flat	1	800	2	1.55	0.005	75	30	175
STTH2L06-Y	Automotive 600 V, 2 A Low Drop Ultrafast Diode	SMB Flat	1	600	2	1.4	0.002	70	30	175
STTH2R02-Y	Automotive 200 V, 2 A Ultrafast Diode	SMB	1	200	2	1	0.003	30	75	175
STTH2R02AF-Y	Automotive 200 V, 2 A SOD128 Flat Ultrafast Diode	SOD128 Flat	1	200	2	0.83	8.0E-4	20	50	175
STTH2R06-Y	Automotive 600 V, 2 A Turbo 2 Ultrafast Diode	SMB Flat	1	600	2	1.9	0.002	50	28	175
STTH3010-Y	Automotive 1000 V, 30 A Ultrafast Diode	D2PAK, DO-247	1	1000	30	1.8	0.015	55	50	175
STTH30L06-Y	Automotive 600 V, 30 A Low Drop Ultrafast Diode	D2PAK, DO-247	1	600	30	1.25	0.025	65	160	175
STTH30R04-Y	Automotive 400 V, 30 A Ultrafast Diode	TO-220AC	1	400	30	1	0.03	45	280	175
STTH30RQ06-Y	Automotive 600 V, 30 A Soft Ultrafast Diode	D2PAK, D2PAK HV, DO-247, TO-220AC	1	600	30	1.85	0.04	50	180	175
STTH30ST06-Y	Automotive 600 V, 30 A Ultrafast Diode	DO-247	1	600	30	2.2	0.5	30	180	175
STTH310-Y	Automotive 1000 V, 3 A Ultrafast Diode*	SMB Flat	1	1000	3	1.7	0.01	75	30	175
STTH3L06-Y	Automotive 600 V, 3A Low Drop Ultrafast Diode	SMB Flat	1	600	3	1.4	0.003	70	30	175
STTH3R02-Y	Automotive 200 V, 3 A Ultrafast Diode	SOD128 Flat	1	200	3	0.83	0.0016	21	80	175
STTH3R06-Y	Automotive 600 V, 3 A Turbo 2 Ultrafast Diode	SMB Flat	1	600	3	1.9	0.003	50	30	175
STTH4R02-Y	200 V, 4 A Ultrafast Diode	DPAK, SMB, SMC C2	1	200	4	0.83, 1.05	0.003	20, 30	70	175
STTH5R06-Y	Automotive 600 V, 5 A Turbo 2 Ultrafast Diode	D2PAK, DPAK	1	600	5	1.8	0.02	25	50	175
STTH6010-Y	Automotive 1000 V, 60 A Ultrafast Diode	DO-247	1	1000	60	1.7	0.02	65	400	175
STTH602C-Y	Automotive 200 V, 6 A dual Ultrafast Diode	DPAK	2	200	6	0.95	0.003	20	60	175
STTH802-Y	Automotive Ultrafast recovery diode	DPAK	1	200	8	1.05	0.006	30	100	175
STTH810-Y	Automotive 1000 V, 8 A Ultrafast Diode	D2PAK	1	1000	8	1.7	0.005	65	60	175
STTH8R06-Y	Automotive 600 V, 8 A Turbo 2 Ultrafast Diode	D2PAK	1	600	8	3.2	0.05	40	80	175

Chassis and Safety ICs

Overview

ST is a world-class supplier of IC smart power solutions for all the Chassis and Safety applications, ranging from passive safety, braking, vehicle dynamics and steering systems. Type of devices in ST portfolio are analog and mixed-signal ICs, integrating different functions such as supply modules, drivers for loads and actuators, diagnostic functions, system monitoring and communication interfaces.

Leading-edge technological processes, specifically developed to fit these applications, and long-lasting relationships with all main Chassis and Safety system suppliers allow ST to be an undisputed world-renowned supplier. The offered portfolio exploits ST total commitment towards automotive quality and aligns to the ISO-26262 standard for functional safety.

ST solutions range from open market developments available to all the customers to full custom developments with dedicated IP implementations. The products come with full application support, both during the development phases and in production, and a set of deliverables to help the system designers evaluate and use the parts.

Airbag



Analog and mixed-signal ICs for passive safety systems

Braking



ABS, ESC and dynamics system ICs

Steering



Analog and mixed-signal ICs for steering systems

ST's complete airbag electronics solution

Airbag system producers can now satisfy the complete system functional requirements by teaming:

* a choice of three **airbag system ICs**, the L9678P, L9679P, and L9680 meeting the demands of applications ranging from entry or mid-level to high-end vehicles with multiple airbag firing loops. These devices, which integrate system power management, sensor interfaces, switch interfaces, and arming safety logic, are responsible for decoding the sensor data and forwarding results to the microcontroller.

* the new AIS1120SX or AIS2120SX **central crash sensors with peripheral accelerometers** like ST's AIS1200PS installed on structures such as bumpers and door pillars.

* the ST's **SPC5 32-bit Power Architecture® MCUs**, including Safety Lines devices.

SPC56 P-Line and SPC56 L-Line are dedicated to the specific needs of chassis and safety applications, with specific focus on functional safety up to turnkey SIL3/ASILD solution based on HW measures. The unique modularity and scalability of the architecture provides compatible devices covering the wide range of airbag solutions.

Automotive Analog and Power / Chassis and Safety ICs/Airbag ICs

Part Number	General Description	Operating Voltage (V) min	Operating Voltage (V) max	Number of Drivers nom	Deployment Drivers (A) (@ T _{min})	SMPS Vout (@ I _{max})	SMPS Operating Frequency (kHz) (@ I _{max}) typ	Interfaces	Other Features	Package	Number of Channels typ	A/D Converters 10-bit	
												Number of A/D Converters typ	
L9654	Quad squib driver and dual sensor interface ASIC for safety application	6.5	35	4	1.2A@2ms/ 1.75A@1ms	-	-	SPI, 2xPAS3/PAS4	- Capability to deploy the squib when the LS MOS is shorted to ground; - Independently controlled HS and LS MOS for diagnosis; - Programmable independent current trip points for each satellite channel; - Analog output available for resistance measurement	LQFP 48 7x7x1.4 mm	-	0	
L9660	Quad squib driver ASIC for safety application	7	37	4	1.2A@2ms/ 1.5A@2ms/ 1.75A@0.65ms/ 1.75A@1ms	-	-	SPI	- Capability to deploy the squib when the LS MOS is shorted to ground; - Independently controlled HS and LS MOS for diagnosis; - Analog output available for resistance measurement	LQFP 64 10x10x1.4 mm	-	-	
L9662	Octal squib driver and quad Manchester/PSIS encoded sensor interface ASIC for safety application	7	37	4	1.2A@2ms/ 1.5A@2ms/ 1.75A@0.65ms/ 1.75A@1ms	-	-	2xSPI	- Capability to deploy the squib when the LS MOS is shorted to ground; - Independently controlled HS and LS MOS for diagnosis; - Programmable independent current trip points for each satellite channel; - Analog output available for resistance measurement	LQFP 64 10x10x1.4 mm	-	-	
L9678P	Automotive user configurable airbag IC	6	18	4	1.2A@2ms/ 1.75A@0.5ms/ 1.75A@0.7ms	23.8/33V@60mA (VER)	1882	SPI, ISO9141 (K-Line)	- 2xHSD/LSD (PWM control), - WDT	LQFP 64 10x10x1.4 mm	-	4	
L9678P-S	Low end System Basis Chip for Airbag including PSIS remote sensor interface	6	18	4	1.2A@2ms/ 1.75A@0.5ms/ 1.75A@0.7ms	23.8/33V@60mA (VER)	1882	SPI, ISO9141 (K-Line), 2xPSIS	- 2xHSD/LSD (PWM control), - WDT	LQFP 64 10x10x1.4 mm	-	4	
L9679E	Automotive Extension Airbag IC	6	35	8	1.2A/1.75A @ (up to 4.032ms)	-	-	SPI, 4xPSIS	Capability to deploy the squib when the LS MOS is shorted to ground; - Programmable deployment time in 64us increments; - Complete set of squib channel diagnosis; - Remote sensor interfaces with async./sync. protocols; - Auto-adjusting current trip points for each satellite channel; - Discrete and independent input arming signals	TQFP 48 7x7x1.0	-	-	
L9679P	Automotive advanced airbag IC for mid/high end applications	6	18	8	1.2A@adj/ 1.75A@adj	23.8/33V@55mA (VER); 7.2/9V@adj (VSUP); 3.3/5V@adj	1882	2xSPI, ISO9141 (K-Line), 2xPSIS	- 3xHSD/LSD (PWM control), - WDT	TQFP 100 14x14x1.0	-	9	
L9680	Automotive advanced airbag IC for mid/high end applications	6	18	12	1.2A@adj/ 1.75A@adj	23.8/33V@70mA (VER); 7.2/9V@adj (VSUP); 3.3/5V@adj	1882	2xSPI, 4xPSIS	- 3xHSD/LSD (PWM control), - WDT	TQFP 100 14x14x1.0	-	9	
L9689E	Automotive 8 channels chip for advanced airbag applications	5.4	18	-	1.75	-	-	2xPSIS.LIN.7xDC sensor, 2xGPOs	-	TQFP 64 10x10x1.0	8	7	
L9690	Automotive 12 channels chip for advanced airbag applications	5.4	18	-	1.75	-	-	6xPSIS.LIN.9xDC sensor, 3xGPOs	2 ADCs for ER cap diagnostics	TQFP 128 14x14x1.0	12	11	
L9658	Octal squib driver and quad sensor interface ASIC for safety application	6.5	35	8	1.2A@2ms/ 1.75A@1ms	-	-	SPI	- Capability to deploy the squib when the LS MOS is shorted to ground; - Independently controlled HS and LS MOS for diagnosis; - Programmable independent current trip points for each satellite channel; - Analog output available for resistance measurement	LQFP 64 10x10x1.4 mm	-	-	
L9659	Octal squib driver ASIC for safety application	7	37	8	1.2A@2ms/ 1.5A@2ms/ 1.75A@0.65ms/ 1.75A@1ms	-	-	SPI	- Capability to deploy the squib when the LS MOS is shorted to ground; - Independently controlled HS and LS MOS for diagnosis; - Analog output available for resistance measurement	LQFP 64 10x10x1.4 mm	8	-	

Automotive Analog and Power / Chassis and Safety ICs/Braking ICs

Part Number	Number of Channels typ	Operating Voltage (V) min	Operating Voltage (V) max	I _{lim} (A) typ	Channels description	Clamp Voltage (V) max	Interfaces	PWM Control	Package
L9300	-	5	18	-	-	-	SPI; CAN; GPO; 4-ch active sensor I/F	-	TQFP 80 14x14x1.0 ExPad Down,TQFP 80 14x14x1.0 ExPad Up
L9349-LF	4	4.5	32	LSD 2x5A; LSD 2x3A	4 SW	60	Parallel	false	PowerSO-20
L9352B	4	4.8	18	LSD 2x5A; LSD 2x2.5A (adj)	2SW+2CC/fwd	60	Parallel	true	PowerSO 36
L9369	-	3.4	32	-	Dual H-bridge pre-driver for EPB application with integrated current/voltage sensing	-	SPI	true	LQFP 64 10x10x1.4 mm
L9370	-	3.4	32	-	Dual H-bridge pre-driver for EPB application with integrated current/voltage sensing	-	-	true	LQFP 64 10x10x1.4 mm
L9396	-	4.5	19	-	-	-	SPI	-	TQFP 64 10x10x1.0
L9347	4	4.8	18	LSD 2x5A; LSD 2x2.5A (adj)	2SW+2CC/fwd	60	Parallel	true	PowerSO 36
L9348	4	4.8	18	LSD 2x5A; LSD 2x3A	2SW+2PWM/fwd	60	Parallel	true	PowerSO 36
L9374LF	4	5.2	20	LSD 2x5A/7A; LSD 2x1.8A (adj)	4 controlled channel LS driver with integrated recirculation diodes	40	SPI	true	PowerSO 36

Automotive Analog and Power / Chassis and Safety ICs/Steering ICs

Part Number	General Description	Package	Operating Voltage (V) min	Operating Voltage (V) max	Switch RDS(on) (m Ω)	Other Features	Interfaces	Watchdog Timer	RESET Output	Operating Temperature (°C) min	Operating Temperature (°C) max	Application Type
L9396	Automotive Multiple Power Supply IC	TQFP 64 10x10x1.0	4.5	19	800	- 4-ch remote sensor I/F or 2-ch tracking regulator; - HS pre-driver for Fail Safe; - Pump Motor pre-drivers; - GPO driver (ON-OFF/PWM)	SPI	true	Open-Drain	-40	175	ADAS,Braking,Chassis and Safety,Steering,Transmission

Door Module Drivers

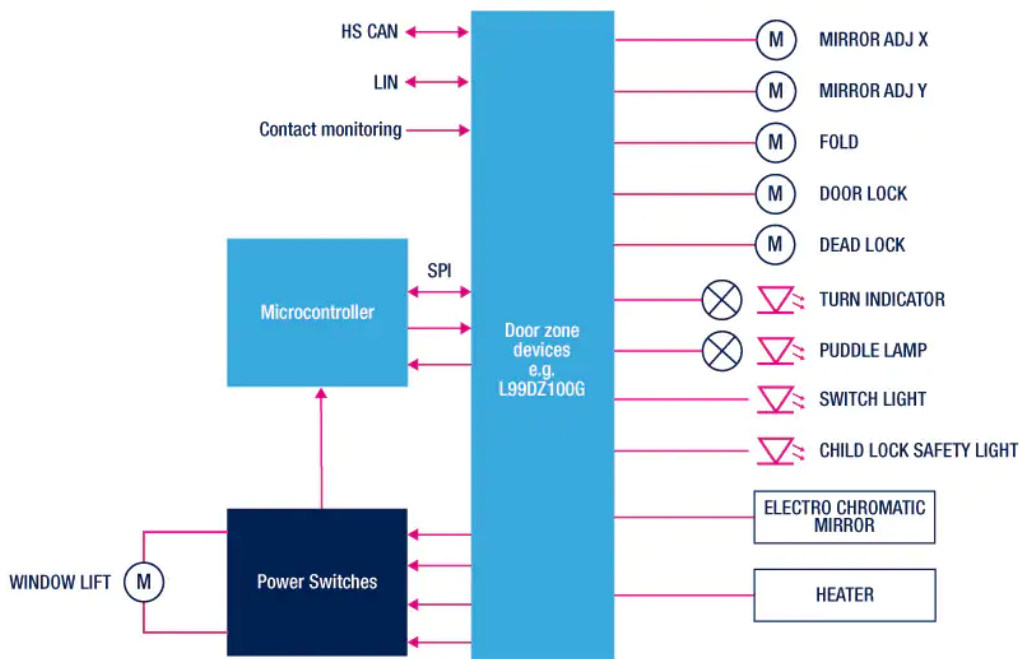
Overview

ST's actuator drivers are designed for state-of-the-art automotive door-module applications. Our devices employ a scalable actuator-driving concept, which includes package and software compatibility with the wide variety of door electronics used by the industry.

The actuator drivers support all regular door-module loads such as window lifting, lock motors, mirror leveling, mirror retraction, defrosters, and several lighting functions from incandescent bulbs to LEDs. For high-end cars, an electrochromic mirror glass control IP is available.

Key features include:

- Scalable solutions that address door electronics schemas across the industry
- Power-management functionality (with Partial Networking IP on selected products)
- Integrated CAN or LIN transceiver
- Control and diagnostics via SPI bus
- Small power packages with superior thermal performance



New family of automotive door-zone controllers

The new L99DZ1xx door-zone controllers integrate power-management and failsafe circuitry previously implemented using external devices.



The family includes the L99DZ100G/GP actuator driver for front-door applications and L99DZ120 actuator driver for rear-door controls. This complete solution enables designers to save space as well as boost reliability and energy efficiency. With the added advantage of software compatibility between the previous generation devices, they also help simplify development and accelerate time to market.

These door-zone system ICs also offer an advanced High-Speed CAN (HS-CAN) interface supporting selective wake-up (ISO 11898-6), LIN 2.2a (SAE J 2602) interface and control blocks as well as protection and supervision features.

Automotive Analog and Power/Door Module Drivers

Part Number	General Description	Package	Grade	Supply Voltage (V) min	Supply Voltage (V) max	RoHS Compliance Grade	PWM Control	Short Circuit Protection	Current sense	Thermal Shutdown	Reverse battery protection	Diagnostic and Programming	EC Control	Number of programmable outputs	Bridge		Switch		Linear Dropout Voltage (V) typ
															I _{lim} (mA) typ	R _{DS(on)} (mΩ) typ	I _{lim} (mA) typ	R _{DS(on)} (mΩ) typ	
L9950	Door Actuator Driver	PowerSO 36	Automotive	7	28	Ecopack2	true	true	true	true	true	SPI	false	11	Full 1x6A; Half 2x3A; Half 2x1.5A	Full 1x150mΩ; Half 2x300mΩ; Half 2x800mΩ	HSD 4x1.5A; HSD 1x6A	HSD 4x800mΩ; HSD 1x100mΩ	-
L9950XP	Door Actuator Driver	PowerSSO 36	Automotive	7	28	Ecopack2	true	true	true	true	true	SPI	false	11	Full 1x6A; Half 2x3A; Half 2x1.5A	Full 1x150mΩ; Half 2x300mΩ; Half 2x800mΩ	HSD 4x1.5A; HSD 1x6A	HSD 4x800mΩ; HSD 1x100mΩ	-
L9951	Rear Door Actuator Driver	PowerSO 36, PowerSSO 36	Automotive	7	28	Ecopack2	true	true	true	true	true	SPI	false	5	Half 1x7.4A; Half 2x5A	Half 1x150mΩ; Half 2x200mΩ	HSD 2x1.25A	HSD 2x800mΩ#937	-
L9953LXP	Door Actuator Driver	PowerSSO 36	Automotive	7	28	Ecopack2	true	true	true	true	true	SPI	false	8	Full 1x6A; Half 3x0.75A	Full 1x150mΩ; Half 3x800mΩ	HSD 2x1.5/0.35A; HSD 1x6A	HSD 2x500/1800mΩ; HSD 1x100mΩ	-
L9954LXP	Door Actuator Driver	PowerSSO 36	Automotive	7	28	Ecopack2	true	true	true	true	true	SPI	false	2	Half 3x0.75A	Half 3x800mΩ#937	HSD 2x1.5/0.35A; HSD 1x6A	HSD 2x500/1800mΩ; HSD 1x100mΩ	-
L99DZ100G	Door Actuator driver with embedded LIN and HS-CAN	LQFP 64 10x10x1.4	Automotive	6	28	Ecopack2	true	true	true	true	true	SPI	true	16	Full: 1x3A; Half: 2x7.5A; 2x0.5A	Full: 1x300mΩ; Half: 1x100mΩ; 1x150mΩ; 2x2000mΩ	HSD: 1x1.5/0.35A; 1x0.8/0.35A; 3x0.15/0.35A; 1x0.25/0.5A; 4x0.15/0.25A	HSD: 1x500/1600mΩ; 1x800/1600mΩ; 4x2Ω; 4x5Ω	0.3
L99DZ100GP	Door Actuator driver with embedded LIN and HS-CAN supporting selective wake up	LQFP 64 10x10x1.4	Automotive	6	28	Ecopack2	true	true	true	true	true	SPI	true	16	Full: 1x3A; Half: 2x7.5A; 2x0.5A	Full: 1x300mΩ; Half: 1x100mΩ; 1x150mΩ; 2x2000mΩ	HSD: 1x1.5/0.35A; 1x0.8/0.35A; 3x0.15/0.35A; 1x0.25/0.5A; 4x0.15/0.25A	HSD: 1x500/1600mΩ; 1x800/1600mΩ; 4x2Ω; 4x5Ω	0.3
L99DZ120	Door Actuator driver with embedded LIN	LQFP 64 10x10x1.4	Automotive	6	28	Ecopack2	true	true	true	true	true	SPI	false	14	Half: 2x7.5A; Half: 2x3A	Full: 1x300mΩ; Half: 1x100mΩ; 1x150mΩ	HSD: 1x1.5/0.35A; 1x0.8/0.35A; 3x0.15/0.35A; 1x0.25/0.5A; 4x0.15/0.25A	HSD: 1x500/1600mΩ; 1x800/1600mΩ; 4x2Ω; 4x5Ω	0.3
L99DZ200G	Automotive Front Door device with LIN and HS-CAN providing Dual Hi-bridge driving	LQFP 64 10x10x1.4	Automotive	6	28	Ecopack2	true	true	true	true	true	SPI	true	11	Full 1x 3A/7.5A; Half 2x 0.5A	Full 1x 300/150; Half 2x 2000	HSD 1x1.5/0.35A; 1x0.7/0.35A; 3x0.15/0.35A; 1x0.25/0.5A; 1x0.15/0.25A	1x500/1600; 1x800/1600; 4x2000; 1x5000	0.3
L99DZ300G	Automotive Front Door Device with CAN FD and LIN	LQFP 64 10x10x1.4	Automotive	6	28	Ecopack2	true	true	true	true	true	SPI	true	16	Full: 1x3000; Half: 1x7500, 1x6000, 2x500	Full: 1x300; Half: 1x100, 1x150, 2x2000	HSD 6x150, 3x500, 1x1500	HSD 6x7000, 3x2000, 1x300	-
L99DZ70XP	Door actuator driver with 6 bridges for double door lock control, mirror fold and mirror axis control, highside driver for mirror	PowerSSO 36	Automotive	7	28	Ecopack2	true	true	true	true	true	SPI	true	11	Full 1x6A; Half 2x3A; 2x0.75A	Full 1x150mΩ; Half 2x300mΩ; Half 2x1600mΩ	HSD 1x6A; HSD 2x1.5/0.4A; HSD 2x0.5	HSD 1x90mΩ; HSD 2x500/1800mΩ; HSD 2x1600mΩ	-
L99DZ80EP	Door Actuator Driver	TQFP 64 10x10x1.0	Automotive	-0.3	28	Ecopack2	true	true	true	true	true	SPI	true	11	Full 1x6A; Half 2x3A; Half 2x0.5	Full 1x150mΩ; Half 2x300mΩ; Half 2x1600mΩ	HSD 1x5A; HSD 1x1.5/0.35A; HSD 1x0.7/0.35A; HSD 2x0.5A	HSD 1x100mΩ; HSD 1x500/1600mΩ; HSD 1x800/1600mΩ; HSD 2x1600mΩ	-
L99DZ81EP	Door Actuator Driver	TQFP 64 10x10x1.0	Automotive	-0.3	28	Ecopack2	true	true	true	true	true	SPI	true	10	Full 1x6A; Half 1x3A	Full 1x150mΩ; Half 1x300mΩ	HSD 1x1.5/0.35A; HSD 1x0.7/0.35A; HSD 2x0.5A	HSD 1x500/1600mΩ; HSD 1x800/1600mΩ	-
L99MM70XP	Integrated Microprocessor driven device intended for LIN controlled exterior mirrors	PowerSSO 36	Automotive	-0.3	28	Ecopack2	true	true	true	true	true	SPI	true	9	Full 1x3A; Half 3x0.5A	Full 1x300mΩ; Half 3x1600mΩ	HSD 1x6A; HSD 1x1.5/0.35A; HSD 2x0.5A	HSD 1x90mΩ; HSD 1x600/1800mΩ; HSD 2x1600mΩ	0.5
L99UDL01	Universal door lock IC	TQFP 64 10x10x1.0	Automotive	-0.3	28	Ecopack2	true	true	true	true	true	SPI	-	6	Half 6x5.3A	Half 6x90mΩ	-	-	-
L9949	Door actuator driver	PowerSO-20	Automotive	7	28	Ecopack2	false	true	true	true	false	SPI	false	6	-	Full 1x150mΩ; Half 3x800mΩ	Full 1x6A; Half 3x1.6A	HSD 1x100mΩ	-
L9953	Door Actuator Driver	PowerSSO 36	Automotive	7	28	Ecopack2	true	true	true	true	true	SPI	false	8	Full 1x6A; Half 3x1.5A	Full 1x150mΩ; Half 3x800mΩ	HSD 2x1.5A; HSD 1x6A	HSD 2x800mΩ; HSD 1x100mΩ	-
L9954	Door Actuator Driver	PowerSSO 36	Automotive	7	28	Ecopack2	true	true	true	true	true	SPI	false	6	Half 3x1.5A	Half 3x800mΩ#937	HSD 2x1.5A; HSD 1x6A	HSD 2x500mΩ; HSD 1x100mΩ	-

High and Low Side Drivers/Switches

Overview

ST VIPower (vertical intelligent power) technology for automotive applications integrates the following features on a single chip:

- digital and analog control driving
- vertical power MOSFET
- advanced monitoring features
- protection circuits.

These features help improve overall application integration and power density, as well as high reliability.



Application:

Smart switches based on VIPower technology are designed to control a wide range of loads for automotive applications in both high- and low-side topologies.



Body control module



HVAC and climate control



Battery management system



Power distribution



Heating system



Active suspension

Product types:

Protected against overtemperature, overcurrent, overvoltage, and electrostatic discharge (ESD) conditions, our high-side and low-side switches are designed to work in the -40 to +150°C temperature range and meet or exceed automotive industry requirements.

The new M0-9 SPI product family features full digital diagnostics with embedded ADC for load current sensing. These new devices implement sophisticated software logic that also simplifies AUTOSAR compatibility.

STi²Fuse devices also feature wire harness protection on top of the typical high-side driver functions.

The configurable low-/high-side are manufactured with ST BCD architecture, and all devices in this family are ISO26262 compliant for functional safety of electrical and/or electronic devices in automotive systems.

Configurable low-/high-side switches:

Multiple solutions with configurable high-side and low-side switches housed in a single IC. 4-, 6-, 8-channel high-side or low-side drivers with $R_{DS(ON)}$ from 300 to 750 m Ω in a wide range of packages. This family also includes 8-channels predrivers configurable as high-side or low-side drivers.

High-side switches:

Single-, dual-, and quad-channel with $R_{DS(ON)}$ from 4 to 80 m Ω housed in a PowerSSO-16 package and fully pin-to-pin compatibility with the previous HSD family. This family features very high precision current sensing and integrates advanced protective functions.

High-side switches for 24V board net:

This family of products in M0-5 technology is intended for 24 V applications. It includes single- and dual-channel devices with $R_{DS(ON)}$ from 6 to 100 m Ω in various package options. These devices are ideal for the harsher environments encountered in heavier vehicle classes such as trucks.

High-side switches with SPI and asymmetrical outputs:

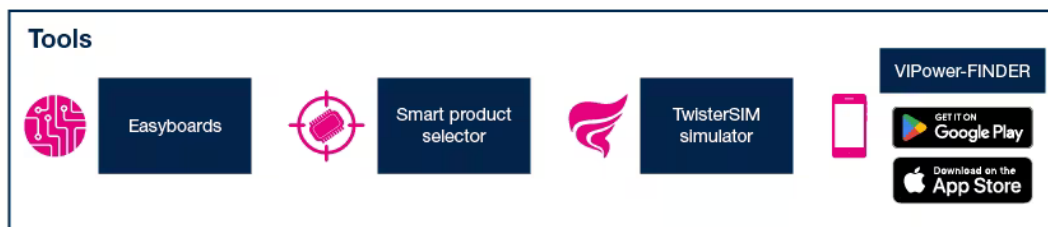
Quad- and hexa-channel with $R_{DS(ON)}$ from 100 m Ω in QFN 6x6 package. This family is designed to meet the needs of smart vehicles with new zonal architectures for increasingly advanced functions.

Low-side switches:

Single- and dual-channel integrated low-side switches with a wide $R_{DS(ON)}$ range from 10 to 300 m Ω and various package options. Optional 20 kHz switching capability or dedicated diagnostic pin.

Smart switches for wire harness protection:

The STi²Fuse family replaces standard melting fuses in automotive power distribution systems and supports greater electrification and additional functions for smart driving.



Benefits:

- Full set of diagnostic for load current, battery voltage, and chip temperature
- High flexibility and configurability
- Advanced diagnostic and protection functionalities
- Limp home mode for the new devices (L9026-L9800)
- High power density

Find the right VIPower device in just few clicks!

Try the new smart selector and find the right low/high-side switch or H-bridge for your car body application. Just set a few parameters such as voltage, topology, number of channels or type of loads, or even source type and temperature, and find the perfect fit for your design. Then, download our TwisterSIM thermal/electrical simulator to view detailed thermal info or simply to test specific corner conditions.



Next-generation VIPower M0-7 intelligent high-side switches

The latest series of high-side drivers, built on VIPower M0-7 technology, offer higher power density, greater accuracy in critical diagnostic and new protection features. This series covers a wide spectrum of $R_{DS(on)}$ values (up to 140 m Ω) and package options, ensuring design scalability. Additional features include:

- Configurable auto-restart or latch-off protection against hazardous conditions
- Multiplexed analog current sense for load current diagnostic
- Ultra-low power consumption (0.5 μ A standby current max)
- Ultra-compact Power-SSO packages
- Extreme low voltage operation for deep cold cranking applications.

Automotive Analog and Power / High and Low Side Drivers/Switches/Configurable Low/High Side Switches

Part Number	General Description	Package	Supply Voltage (V) max	Supply Voltage (V) min	Number of Channels typ	Switch Drain current limit (A) typ	Switch RDS(on) (mΩ) typ
L9026	Configurable multi channel relay driver 2HS + 6HS/LS	HTSSOP24	-	-	-	-	-
L9301	Octal low side driver or quad low side plus quad high side driver	PowerSSO 36	5.25	4.75	12	HSD/LSD 4x3A; LSD 8x3A	HSD/LSD 4x0.6Ω; LSD 4x0.6Ω; LSD 4x0.3Ω
L9733	Octal configurable low/high side driver	PowerSSO 28 7.5x10.3	5.5	4.5	8	HSD/LSD 8x2.5A	HSD/LSD 8x0.7Ω
L9848	Octal configurable low/high side driver	SO-28	5.25	4.75	8	LSD/HSD 6x0.8A; LSD 2x0.8A	LSD/HSD 6x2Ω; LSD 2x2Ω
L9945	Automotive fully configurable 8-channel High/Low side MOSFET	TQFP 64 10x10x1.0	-	-	8	-	-
L99MC6GJ	Automotive Configurable 6-Channel Device	PowerSSO 16	5.3	3	6	LSD/HSD 3x0.6A; LSD 3x0.6A	LSD/HSD 3x0.7Ω; LSD 3x0.7Ω
L99MC6	Configurable 6-Channel Device	PowerSSO 16	5.3	3	-	-	-

Automotive Analog and Power / High and Low Side Drivers/Switches/High Side Switches

Part Number	General Description	Number of Channels nom	Technology	R _{DS(on)} (mΩ) typ	Package	Supply Voltage (V) min	Supply Voltage (V) max	Absolute Max Supply Voltage max	Drain Current Limit (A) typ	RoHS Compliance Grade	Openload OFF State Voltage Detection Threshold (V) min	Supported Design Tools	Current sense	Digital status
VN5012AK-E	Single channel high side switch	1	M0-5	12	PowerSSO 24	4.5	36	41	65	Ecopack2	-	TwisterSIM	true	-
VN5016AJ-E	Single channel high side driver with analog current sense for automotive applications	1	M0-5	16	PowerSSO 12	4.5	36	41	65	Ecopack2 (**)	-	TwisterSIM	true	-
VN5025AJ-E	Single channel high side driver	1	M0-5	25	PowerSSO 12	4.5	36	41	40	Ecopack2 (**)	-	TwisterSIM	true	-
VN5050AJ-E	Single channel high side driver	1	M0-5	50	PowerSSO 12	4.5	36	41	16.5	Ecopack2 (**)	-	TwisterSIM	true	-
VN5050J-E	Single channel high side driver for automotive applications	1	M0-5	50	PowerSSO 12	4.5	36	41	19	Ecopack1 (*)	-	TwisterSIM	-	true
VN5160S-E	Single channel high side driver for automotive applications	1	M0-5	160	SO-8	4.5	36	41	5.4	Ecopack2	-	TwisterSIM	-	true
VN5E006ASP-E	Single channel high-side driver with analog current sense for automotive applications	1	M0-5Enhanced	6	PowerSO-10	4.5	28	41	90	Ecopack2	-	TwisterSIM	true	-
VN5E010AH	10 milliohm high-side driver with analog current sense for automotive applications	1	M0-5Enhanced	10	TO-252 6L	4.5	28	41	85	Ecopack1	-	TwisterSIM	true	-
VN5E010MH-E	Single-channel high-side driver with analog current sense for automotive applications	1	M0-5Enhanced (M Vers.)	10	TO-252 6L	4.5	28	41	85	Ecopack1	-	-	true	-
VN5E025AJ-E	Single channel high side driver with analog current sense for automotive applications	1	M0-5Enhanced	25	PowerSSO 12	4.5	28	41	60	Ecopack2 (**)	-	TwisterSIM	true	-
VN5E025MJ-E	Single channel high side driver with analog current sense for automotive applications	1	M0-5Enhanced (M Vers.)	25	PowerSSO 12	4.5	28	41	60	Ecopack2 (**)	-	-	true	-
VN5E050AJ-E	Single channel high side driver with analog current sense for automotive applications	1	M0-5Enhanced	50	PowerSSO 12	4.5	28	41	27	Ecopack1 (*)	-	TwisterSIM	true	-
VN5E050J-E	Single channel high side driver for automotive applications	1	M0-5Enhanced	50	PowerSSO 12	4.5	28	41	27	Ecopack1 (*)	-	TwisterSIM	-	true
VN5E050MJ-E	Single-channel high-side driver with analog current sense for automotive applications	1	M0-5Enhanced (M Vers.)	50	PowerSSO 12	4.5	28	41	27	Ecopack1 (*)	-	-	true	-
VN5E160AS-E	Single channel high side driver with analog for automotive applications	1	M0-5Enhanced	160	SO-8	4.5	28	41	10	Ecopack2	-	TwisterSIM	true	-
VN5E160MS-E	Single-channel high-side driver with analog for automotive applications	1	M0-5Enhanced (M Vers.)	160	SO-8	4.5	28	41	10	Ecopack2	-	-	true	-
VN5E160S-E	Single channel high side driver for automotive applications	1	M0-5Enhanced	160	SO-8	4.5	28	41	10	Ecopack2	-	-	-	true
VN7000AY	High-side driver with MultiSense analog feedback for automotive applications	1	M0-7	1.5	PWSSO 36	4	28	38	140	Ecopack2	-	-	true	-
VN7003AH	High-side driver with Current Sense analog feedback for automotive applications	1	M0-7	3.5	HPAK + 1 (OCTAPAK)	4	28	38	135	Ecopack2	-	TwisterSIM	true	-
VN7003ALH	Single channel 3 mOhm High-side driver with Current Sense analog feedback for automotive applications	1	M0-7	3.5	HPAK + 1 (OCTAPAK)	4	28	38	135	Ecopack2	-	TwisterSIM	true	-
VN7004CH	High-side driver with CurrentSense analog feedback for automotive applications	1	M0-7	4	HPAK + 1 (OCTAPAK)	4	28	38	135	Ecopack2	-	TwisterSIM	true	-
VN7004CLH	High-side driver with CurrentSense analog feedback for automotive applications	1	M0-7	4	HPAK + 1 (OCTAPAK)	4	28	38	135	Ecopack2	-	TwisterSIM	true	-
VN7004SLH	High-side driver with CurrentSense analog feedback for Seat Heating automotive applications	1	M0-7	4	HPAK + 1 (OCTAPAK)	4	28	38	135	Ecopack2	-	TwisterSIM	true	-
VN7007AH	High side driver with current sense analog feedback for automotive applications	1	M0-7	7	HPAK + 1 (OCTAPAK)	4	28	40	100	Ecopack2	-	TwisterSIM	true	-
VN7007ALH	High side driver with current sense analog feedback for automotive applications	1	M0-7	7	HPAK + 1 (OCTAPAK)	4	28	40	100	Ecopack2	-	TwisterSIM	true	-
VN7008AJ	High-side driver with MultiSense analog feedback	1	M0-7	8.5	PowerSSO 16	4	28	38	98	Ecopack2	-	TwisterSIM	true	-
VN7010AJ	High-side driver with MultiSense analog feedback for automotive applications	1	M0-7	10	PowerSSO 16	4	28	38	91	Ecopack2	-	TwisterSIM	true	-
VN7016AJEP	High-side driver with MultiSense analog feedback for automotive applications	1	M0-7	16	PowerSSO 16	4	28	40	77	Ecopack2	2	TwisterSIM	true	-
VN7020AJ	High-side driver with MultiSense analog feedback for automotive application	1	M0-7	20	PowerSSO 16	4	28	38	63	Ecopack2	-	TwisterSIM	true	-
VN7040AJ	High-side driver with MultiSense analog feedback for automotive applications	1	M0-7	40	PowerSSO 16	4	28	38	34	Ecopack2	-	TwisterSIM	true	-
VN7040AS	High-side driver with MultiSense analog feedback for automotive applications	1	M0-7	40	SO-8	4	28	38	34	Ecopack2	-	TwisterSIM	true	-
VN7050AJ	High-side driver with MultiSense analog feedback for automotive applications	1	M0-7	50	PowerSSO 16	4	28	38	30	Ecopack2	-	TwisterSIM	true	-
VN7050AS	High-side driver with MultiSense analog feedback for automotive application	1	M0-7	50	SO-8	4	28	38	30	Ecopack2	-	TwisterSIM	true	-

VN7140AJ	High-side driver with MultiSense analog feedback for automotive applications	1	M0-7	140	PowerSSO 16	4	28	38	12	Ecopack2	-	TwisterSIM	true	-
VN7140AS	Single-channel HSD with analog current sense	1	M0-7	140	SO-8	4	28	38	12	Ecopack2	-	TwisterSIM	true	-
VN7140AS12	Single-channel HSD with analog current sense	1	M0-7	140	SO-8	4	28	38	12	Ecopack2	-	TwisterSIM	true	-
VN750-E	High Side Driver	1	M0-3	60	P2PAK,PPACK 5	5.5	36	41	9	Ecopack1	1.5	-	-	true
VN750PS-E	High side driver	1	M0-3	60	SO-8	5.5	36	41	9	Ecopack2	-	-	-	true
VN750SMP-E	High side driver	1	M0-3	55	SO-8	5.5	36	41	9	Ecopack2	-	-	-	true
VN7E010AJ	High-side driver with MultiSense analog feedback for automotive applications	1	M0-7Enhanced	10.5	PowerSSO 16	4	28	38	88	Ecopack2	-	TwisterSIM	true	-
VN800PS-E	High-side driver	1	M0-3	135	SO-8	5.5	36	41	1.3	Ecopack2	-	-	-	true
VN820-E	High Side Driver	1	M0-3	40	P2PAK,PPACK 5,PowerSO 10	5.5	36	41	13	Ecopack1	1.5	-	-	true
VN9004AJ	Single channel high-side driver with Current Sense analog feedback for automotive applications	1	M0-9	4.2	PowerSSO 16	4	28	36	108	Ecopack2	-	-	true	-
VN9006AJ	Single channel high-side driver with Current Sense analog feedback for automotive applications	1	M0-9	6	PowerSSO 16	4	28	36	82	Ecopack2	2	-	true	-
VN9008AJ	Single channel high-side driver with Current Sense analog feedback for automotive applications	1	M0-9	8	PowerSSO 16	4	28	36	81.6	Ecopack2	2	-	true	-
VN9012AJ	Single channel high-side driver with current sense analog feedback for automotive applications	1	M0-9	12	PowerSSO 16	4	28	36	63	Ecopack2	-	-	true	-
VN9016AJ	Single channel high-side driver with current sense analog feedback for automotive applications	1	M0-9	16	PowerSSO 16	4	28	36	50	Ecopack2	-	-	true	-
VN920B5-E	SINGLE CHANNEL HIGH SIDE SOLID STATE RELAY	1	M0-3	16	P2PAK	5.5	36	41	45	Ecopack1	-	-	true	-
VND5004A-E	Double 4mOhm high side driver with analog current sense for automotive applications	2	M0-5	4	QFPN PW 24 12x12x2.1	4.5	27	41	100	Ecopack2	-	TwisterSIM	true	-
VND5004ASP30-E	Double 4mOhm high side driver with analog current sense for automotive applications	2	M0-5	4	SO-30 Multi Power	4.5	27	41	100	Ecopack2	-	-	true	-
VND5012AK-E	Double channel high side driver with analog current sense for automotive applications	2	M0-5	12	PowerSSO 24	4.5	36	41	60	Ecopack2	-	TwisterSIM	true	-
VND5025AK-E	Double channel high side driver with analog current sense	2	M0-5	25	PowerSSO 24	4.5	36	41	41	Ecopack2	-	TwisterSIM	true	-
VND5050AJ-E	Double channel high side driver with analog current sense	2	M0-5	50	PowerSSO 12	4.5	36	41	18	Ecopack2 (**)	-	TwisterSIM	true	-
VND5050AK-E	Double channel high side driver with analog current sense for automotive applications	2	M0-5	50	PowerSSO 24	4.5	36	41	18	Ecopack2	-	TwisterSIM	true	-
VND5050J-E	Double channel high side driver with analog current sense	2	M0-5	50	PowerSSO 12	4.5	36	41	18	Ecopack2 (**)	-	TwisterSIM	-	true
VND5160AJ-E	Double channel high side driver with analog current sense for automotive applications	2	M0-5	160	PowerSSO 12	4.5	36	41	5	Ecopack1 (*)	-	TwisterSIM	true	-
VND5160J-E	Double channel high side driver for automotive applications	2	M0-5	160	PowerSSO 12	4.5	36	41	5	Ecopack2 (**)	-	TwisterSIM	-	true
VND5E004A-E	Double 4 mOhm high-side driver with analog current sense	2	M0-5Enhanced	4	QFPN PW 24 12x12x2.1	4.5	28	41	90	Ecopack2	-	TwisterSIM	true	-
VND5E004ASP30-E	Double 4 milliohm high-side driver with analog current sense for automotive applications	2	M0-5Enhanced	4	SO-30 Multi Power	4.5	28	41	90	Ecopack2	-	TwisterSIM	true	-
VND5E006ASP-E	Double channel high-side driver with analog current sense for automotive applications	2	M0-5Enhanced	5	PowerSO 16	4.5	28	41	100	Ecopack2	-	TwisterSIM	true	-
VND5E008AY-E	Double channel high side driver with analog current sense for automotive applications	2	M0-5Enhanced	8	PWSSO 36	4.5	28	41	76	Ecopack2	-	TwisterSIM	true	-
VND5E012MY-E	Double channel high-side driver with analog current sense for automotive applications	2	M0-5Enhanced (M Vers.)	12	PWSSO 36	4.5	28	41	74	Ecopack2	-	-	true	-
VND5E025AK-E	Double channel high-side driver with analog current sense for automotive applications	2	M0-5Enhanced	25	PowerSSO 24	4.5	28	41	60	Ecopack2	-	TwisterSIM	true	-
VND5E025AY-E	Double-channel high-side driver with analog current sense for automotive applications	2	M0-5Enhanced	25	PWSSO 36	4.5	28	41	47	Ecopack2	-	TwisterSIM	true	-
VND5E025BK-E	Double channel high-side driver with analog current sense for automotive applications	2	M0-5Enhanced	25	PowerSSO 24	4.5	28	41	60	Ecopack2	-	-	true	-
VND5E025MK-E	Double-channel high-side driver with analog current sense for automotive applications	2	M0-5Enhanced (M Vers.)	25	PowerSSO 24	4.5	28	41	60	Ecopack2	-	-	true	-
VND5E050ACJ-E	Double channel high side driver with analog current sense for automotive applications	2	M0-5Enhanced	50	PowerSSO 12	4.5	28	41	27	Ecopack2 (**)	-	-	true	-
VND5E050ACK-E	Double channel high side driver with analog current sense for automotive applications	2	M0-5Enhanced	50	PowerSSO 24	4.5	28	41	27	Ecopack2	-	-	true	-
VND5E050MCJ-E	Double channel high side driver with analog current sense for automotive applications	2	M0-5Enhanced	50	PowerSSO 12	4.5	28	41	27	Ecopack2 (**)	-	-	true	-
VND5E050MCK-E	Double channel high side driver with analog current sense for automotive applications	2	M0-5Enhanced	50	PowerSSO 24	4.5	28	41	27	Ecopack2	-	-	true	-

VND5E160AJ-E	Double channel high side driver with analog current sense for automotive applications	2	M0-5Enhanced	160	PowerSSO 12	4.5	28	41	10	Ecopack2 (**)	-	TwisterSIM	true	-
VND5E160J-E	Double channel high side driver for automotive applications	2	M0-5Enhanced	160	PowerSSO 12	4.5	28	41	10	Ecopack1 (*)	-	TwisterSIM	-	true
VND5E160MJ-E	Double-channel high-side driver with analog current sense for automotive applications	2	M0-5Enhanced (M Vers.)	160	PowerSSO 12	4.5	28	41	10	Ecopack1 (*)	-	-	true	-
VND7004AY	Double channel high-side driver with MultiSense analog feedback for automotive applications	2	M0-7	4	PWSSO 36	4	28	40	100	Ecopack2	-	TwisterSIM	true	-
VND7012AY	Double channel high-side driver with MultiSense analog feedback	2	M0-7	12	PWSSO 36	4	28	38	75	Ecopack2	-	TwisterSIM	true	-
VND7020AJ	Double channel high-side driver with MultiSense analog feedback for automotive applications	2	M0-7	22	PowerSSO 16	4	28	40	63	Ecopack2	2	TwisterSIM	true	-
VND7030AJ	Double channel high-side driver with MultiSense analog feedback for automotive applications	2	M0-7	31	PowerSSO 16	4	28	40	56	Ecopack2	2	TwisterSIM	true	false
VND7040AJ	Double-channel HSD with MultiSense analog feedback	2	M0-7	40	PowerSSO 16	4	28	40	34	Ecopack2	-	TwisterSIM	true	false
VND7050AJ	Double channel high-side driver with MultiSense analog feedback	2	M0-7	50	PowerSSO 16	4	28	41	30	Ecopack2	2	TwisterSIM	true	false
VND7050AJ12	Double channel high-side driver with MultiSense analog feedback	2	M0-7	50	PowerSSO 12	4	28	41	30	Ecopack2	2	-	true	false
VND7140AJ	Double channel high-side driver with MultiSense analog feedback	2	M0-7	140	PowerSSO 16	4	28	40	12	Ecopack2	-	TwisterSIM	true	false
VND7140AJ12	Double channel high-side driver with MultiSense analog feedback	2	M0-7	140	PowerSSO 12	4	28	40	12	Ecopack2	-	-	true	false
VND7E025AJ	Double channel high-side driver with MultiSense analog feedback for automotive applications	2	M0-7Enhanced	27	PowerSSO 16	4	28	40	61	Ecopack2	2	TwisterSIM	true	-
VND7E040AJ	Double-channel HSD with Current Sense analog feedback	2	M0-7Enhanced	38	PowerSSO 16	4	28	40	38	Ecopack2	-	TwisterSIM	true	false
VND7E050AJ	Double-channel HSD with Current Sense analog feedback	2	M0-7Enhanced	50	PowerSSO 16	4	28	40	40	Ecopack2	-	-	true	false
VND9008AJ	Double channel high-side driver with current sense analog feedback for automotive applications	2	M0-9	9.4	PowerSSO 16	4	28	36	67	Ecopack2	2	-	true	-
VND9012AJ	Double channel high-side driver with Current Sense analog feedback for automotive applications	2	M0-9	12	PowerSSO 16	4	28	36	63	Ecopack2	-	-	true	-
VND9016AJ	Double channel high-side driver with Current Sense analog feedback for automotive applications	2	M0-9	16	PowerSSO 16	4	28	36	50	Ecopack2	2	-	true	-
VND9025AJ	Double channel high-side driver with current sense analog feedback for automotive applications	2	M0-9	25	PowerSSO 16	4	28	36	35	Ecopack2	2	-	true	-
VNQ500	Quad channel high-side driver	4	M0-3	-	PowerSSO 12	5.5	36	41	0.4	Ecopack1	-	-	-	true
VNQ5027AK-E	Quad channel high side driver with analog current sense for automotive applications	4	M0-5	27	PowerSSO 24	4.5	36	41	40	Ecopack2	-	TwisterSIM	true	-
VNQ5050AK-E	Quad channel high side driver with analog current sense for automotive application	4	M0-5	50	PowerSSO 24	4.5	36	41	19	Ecopack2	-	TwisterSIM	true	-
VNQ5050K-E	Quad channel high side driver with analog current sense for automotive applications	4	M0-5	50	PowerSSO 24	4.5	36	41	19	Ecopack2	-	TwisterSIM	-	true
VNQ5160K-E	Quad channel high side driver with analog current sense for automotive applications	4	M0-5	160	PowerSSO 24	4.5	36	41	5.4	Ecopack2	-	TwisterSIM	-	true
VNQ5E050AK-E	Quad channel high side driver with analog current sense for automotive applications	4	M0-5Enhanced	50	PowerSSO 24	4.5	28	41	27	Ecopack2	-	TwisterSIM	true	-
VNQ5E160AK-E	Quad channel high side driver with analog current sense for automotive applications	4	M0-5Enhanced	160	PowerSSO 24	4.5	28	41	10	Ecopack2	-	-	true	-
VNQ5E160K-E	Quad channel high side driver for automotive applications	4	M0-5Enhanced	160	PowerSSO 24	4.5	28	41	10	Ecopack2	-	-	-	true
VNQ5E250AJ-E	Standard Functions, High Side Switches	4	M0-5Enhanced	250	PowerSSO 16	4.5	28	41	5	Ecopack2 (**)	-	TwisterSIM	true	-
VNQ7040AY	Quad channel high-side driver with MultiSense analog feedback for automotive applications	4	M0-7	40	PWSSO 36	4	28	38	34	Ecopack2	-	TwisterSIM	true	-
VNQ7050AJ	Quad-channel HSD with analog current sense	4	M0-7	50	PowerSSO 16	4	28	38	27	Ecopack2	-	TwisterSIM	true	-
VNQ7140AJ	Quad channel high-side driver with MultiSense analog feedback for automotive applications	4	M0-7	140	PowerSSO 16	4	28	38	12	Ecopack2	-	TwisterSIM	true	-
VNQ7E100AJ	Quad channel high-side driver with MultiSense analog feedback for automotive applications	4	M0-7Enhanced	100	PowerSSO 16	4	28	38	15	Ecopack2	-	-	true	-
VNQ9025AJ	Quad channel high-side driver with Current Sense analog feedback for automotive applications	4	M0-9	25	PowerSSO 16	4	28	36	30	Ecopack2	2	-	true	-
VNQ9080AJ	Quad channel high-side driver with Current Sense analog feedback for automotive applications	4	M0-9	80	PowerSSO 16	4	28	35	13.5	Ecopack2	-	-	true	-
VN5E016AH-E	16 mΩ high-side driver with analog current sense	1	M0-5Enhanced	16	TO-252 6L	4.5	28	41	73	Ecopack1	-	TwisterSIM	true	-
VN5E160ASO-E	Single channel high side driver with analog for automotive applications	1	M0-5Enhanced	160	SO-16W	4.5	28	41	10	Ecopack1	-	-	true	-
VN7016AJ	High-side driver with MultiSense analog feedback for automotive applications	1	M0-7	16	PowerSSO 16	4	28	40	77	Ecopack2	2	TwisterSIM	true	-
VPS2535H	Double channel high-side driver with analog current sense	2	M0-5T	35	PowerSSO 24	8	28	58	42	Ecopack2	-	-	true	-
VN5E016AFH-E	16 mΩ high-side driver with analog current sense	1	M0-5Enhanced	16	TO-252 6L	4.5	28	41	73	Ecopack1	-	-	-	-

Automotive Analog and Power / High and Low Side Drivers/Switches/High Side Switches for 24V Board Net

Part Number	General Description	Package	RoHS Compliance Grade	Number of Channels nom	Technology	Supply Voltage (V) min	Supply Voltage (V) max	Absolute Max Supply Voltage max	R _{DS(on)} (mΩ) typ	Drain Current Limit (A) typ	Current sense	Supported Design Tools
VN5T006ASP-E	Single Channel High Side Driver with Analog Current Sense for 24V Automotive Applications	PowerSO-10	Ecopack2 (**)	1	M0-5T	8	36	58	6	115	true	TwisterSIM
VN5T016AH-E	Single Channel High Side Driver with Analog Current Sense for 24V Automotive Applications	TO-252 6L	Ecopack1	1	M0-5T	8	36	58	16	60	true	TwisterSIM
VND5T016ASP-E	Double channel high-side driver with analog current-sense for 24V automotive applications	PowerSO 16	Ecopack2	2	M0-5T	8	36	58	16	70	true	TwisterSIM
VND5T035AK-E	Double channel high-side driver with analog current-sense for 24V automotive applications	PowerSSO 24	Ecopack2	2	M0-5T	8	36	58	35	42	true	TwisterSIM
VND5T035LAK-E	Double channel high-side driver with analog current-sense for 24V automotive applications	PowerSSO 24	Ecopack2	2	M0-5T	8	36	58	35	42	true	-
VND5T050AK-E	Double channel high-side driver with analog current-sense for 24V automotive applications	PowerSSO 24	Ecopack2	2	M0-5T	8	36	58	50	34	true	TwisterSIM
VND5T100AJ-E	Double channel high-side driver with analog current-sense for 24V automotive applications	PowerSSO 12	Ecopack2 (**)	2	M0-5T	8	36	58	100	22	true	TwisterSIM
VND5T100LAJ-E	Double channel high-side driver with analog current sense for 24 V automotive applications	PowerSSO 12	Ecopack2 (**)	2	M0-5T	8	36	58	100	22	true	-

Automotive Analog and Power / High and Low Side Drivers/Switches/High Side Switches with SPI and Asymmetrical Outputs

Part Number	General Description	Package	Number of Channels	Technology	Supply Voltage (V) min	Supply Voltage (V) max	Absolute Max Supply Voltage max	Current sense	Switch Drain current limit (A) typ	Switch RDS(on) (mΩ) typ
VN9D30Q100F	6-channel high-side driver with 24-bit SPI interface for automotive applications	VFQFPN 6X6X1 32L P0.5 MIXPLANT R	6	M0-9	4	28	35	true	2x31.5;4x14	2x33mΩ;4x90mΩ
VN9D5D20F	4-channel high-side driver with 24-bit SPI interface for automotive applications	VFQFPN 6X6X1 32L P0.5 MIXPLANT R	4	M0-9	4	28	36	true	2x72; 2x34.5	2x6.7; 2x20
VN9D5D20FN	4-channel high-side driver with 24-bit SPI interface for automotive applications	VFQFPN 6X6X1 32L P0.5 MIXPLANT R	4	M0-9	4	28	35	true	2x72A; 2x34.5A	2x7.6mΩ; 2x20mΩ
VNQ7003SY	Quad-channel high-side driver with 16-bit SPI interface	PWSSO 36	4	M0-7	5	28	40	true	2x35A; 2x80A	2x7mΩ; 2x25mΩ
VNQ6004SA-E	Quad-channel high-side driver	PWSSO 36	4	M0-6	5	28	41	true	2x35; 2x80	2x30; 2x10
VNQ6040S-E	Quad-channel high-side driver	PWSSO 36	4	M0-6	5	28	41	true	4x35	4x30

Automotive Analog and Power / High and Low Side Drivers/Switches/Low Side Switches

Part Number	General Description	Number of Channels nom	Technology	R _{DS(on)} (mΩ) typ	Package	RoHS Compliance Grade	Clamp Voltage (V) typ	Drain Current Limit (A) typ	Digital status	Supported Design Tools
L9338	Quad Low-Side Driver	4	Multipower-BCD	1500	SO-20	Ecopack1	50	0.4	-	-
L9362	Quad Low Side Driver	4	-	500	PowerSO 36	Ecopack2	50	3	true	-
L9651	Smart Quad Switch	4	-	850	PowerSO-20	Ecopack2	70	2.2	-	-
L9822E	Octal Serial Solenoid Driver	8	Multipower-BCD	500	PowerSO-20	Ecopack2	36	1.05	-	-
L9823	Octal Low-Side Driver for bulb, resistive and inductive loads with serial input control, output protection and diagnostic	8	-	800	SO-24	Ecopack1	50	2	-	-
L9825	Octal Low-Side Driver for Resistive and Inductive Loads With Serial/Parallel Input Control Output Protection and Diagnostic	8	-	1500	PowerSO-20	Ecopack2	50	1	-	-
L9826	Octal Low-Side Driver for Resistive and Inductive Loads With Serial/Parallel Input Control Output Protection and Diagnostic	8	-	3000	SO-20	Ecopack2 (**)	50	0.45	-	-
VNB10N07	OMNIFET :FULLY AUTOPROTECTED POWER MOSFET	1	M0-2	100	D2PAK	Ecopack1	70	10	-	-
VNB14NV04	OMNIFET II :FULLY AUTOPROTECTED POWER MOSFET	1	M0-3	35	D2PAK	Ecopack1	45	18	-	-
VNB20N07	OMNIFET :FULLY AUTOPROTECTED POWER MOSFET	1	M0-2	50	D2PAK	Ecopack1	70	20	-	-
VNB35N07-E	OMNIFET fully autoprotected Power MOSFET	1	M0-3	28	D2PAK	Ecopack1	70	35	-	-
VNB35NV04-E	OMNIFET II :FULLY AUTOPROTECTED POWER MOSFET	1	M0-3	10	D2PAK	Ecopack1	45	45	-	-
VND10N06	OMNIFET :FULLY AUTOPROTECTED POWER MOSFET	1	M0-2	300	DPAK	Ecopack1	60	10	-	-
VND14NV04	OMNIFET II :FULLY AUTOPROTECTED POWER MOSFET	1	M0-3	35	DPAK	Ecopack1	45	18	-	-
VND3NV04	OMNIFET II :FULLY AUTOPROTECTED POWER MOSFET	1	M0-3	120	DPAK	Ecopack1	45	5	-	-
VND5N07-E	OMNIFET :FULLY AUTOPROTECTED POWER MOSFET	1	M0-2	200	DPAK	Ecopack1	70	5	-	-
VND7NV04	OMNIFET II :FULLY AUTOPROTECTED POWER MOSFET	1	M0-3	60	DPAK	Ecopack1	45	9	-	-
VNL5030J-E	OMNIFET III: fully protected low-side driver	1	M0-5	30	PowerSSO 12	Ecopack2 (**)	46	35	true	TwisterSIM
VNL5030S5-E	OMNIFET III: fully protected low-side driver	1	M0-5	30	SO-8	Ecopack2	46	35	true	TwisterSIM
VNL5050N3-E	OMNIFET III fully protected low-side driver	1	M0-5	50	SOT-223	Ecopack2	46	27	-	TwisterSIM
VNL5050S5-E	OMNIFET III fully protected low-side driver	1	M0-5	50	SO-8	Ecopack2	46	27	true	TwisterSIM
VNL5090N3-E	OMNIFET III: fully protected low-side driver	1	M0-5	90	SOT-223	Ecopack2	46	18	-	TwisterSIM
VNL5090S5-E	OMNIFET III: fully protected low-side driver	1	M0-5	90	SO-8	Ecopack2	46	18	true	TwisterSIM
VNL5160N3-E	OMNIFET III fully protected low-side driver	1	M0-5	160	SOT-223	Ecopack2	46	5	-	TwisterSIM
VNL5160S5-E	Single channel smart power low-side switch	1	M0-5	160	SO-8	Ecopack2	46	5	true	TwisterSIM
VNL5300S5-E	Single channel LSD with digital status	1	M0-5	300	SO-8	Ecopack2	46	2.8	true	TwisterSIM
VNLD5090-E	OMNIFET III: fully protected low-side driver	2	M0-5	90	SO-8	Ecopack2	46	18	true	TwisterSIM
VNLD5160-E	OMNIFET III: fully protected low-side driver	2	M0-5	160	SO-8	Ecopack2	46	5	true	-
VNLD5300-E	OMNIFET III fully protected low-side driver	2	M0-5	300	SO-8	Ecopack2	46	2.8	true	TwisterSIM
VNN1NV04P-E	OMNIFET II fully autoprotected Power MOSFET	1	M0-3	250	SOT-223	Ecopack2	45	2.6	-	-

VNN3NV04P-E	OMNIFET II fully autoprotected Power MOSFET	1	M0-3	120	SO-8,SOT-223	Ecopack2	45	5	-	-
VNN7NV04P-E	OMNIFET II - fully autoprotected Power MOSFET	1	M0-3	65	SOT-223	Ecopack2	45	9	-	-
VNP10N07	OMNIFET :FULLY AUTOPROTECTED POWER MOSFET	1	M0-2	100	TO-220AB	Ecopack2	70	10	-	-
VNP20N07	OMNIFET :FULLY AUTOPROTECTED POWER MOSFET	1	M0-2	50	TO-220AB	Ecopack2 (**)	70	20	-	-
VNP35N07-E	OMNIFET: fully autoprotected Power MOSFET	1	M0-2	28	TO-220AB	Ecopack2 (**)	70	35	-	-
VNP8T	Omnifet II fully autoprotected Power MOSFET	1	M0-3	120	DICE SAWN T&R	N/A	-	5	false	-
VNS14NV04P-E	OMNIFET II fully autoprotected Power MOSFET	1	M0-3	35	SO-8	Ecopack2	45	18	-	-
VNS1NV04DP-E	OMNIFET II :FULLY AUTOPROTECTED POWER MOSFET	2	M0-3	250	SO-8	Ecopack2	45	2.6	-	-
VNS1NV04P-E	OMNIFET II fully autoprotected Power MOSFET	1	M0-3	250	SO-8	Ecopack2	45	2.6	-	-
VNS3NV04DP-E	OMNIFET II fully autoprotected Power MOSFET	2	M0-3	120	SO-8	Ecopack2	45	5	-	-
VNS7NV04P-E	OMNIFET II - fully autoprotected Power MOSFET	1	M0-3	65	SO-8	Ecopack2	45	9	-	-
VNV35N07-E	OMNIFET II fully autoprotected Power MOSFET	1	M0-3	28	PowerSO-10	Ecopack1	70	35	-	-
L9333	Quad Low-Side Driver	4	Multipower-BCD	1500	SO-20	Ecopack1	45	0.4	-	-
L93PI	Quad Low Side Driver	4	Multipower-BCD	1500	SO-20	Ecopack1 (*)	45	0.7	-	-
VNP5N07	OMNIFET :FULLY AUTOPROTECTED POWER MOSFET	1	M0-2	200	TO-220AB	Ecopack2	70	5	-	-

Automotive Analog and Power / High and Low Side Drivers/Switches/Smart switches for wire harness protection

Part Number	General Description	Number of Channels nom	Technology	Package	Supply Voltage (V) min	Supply Voltage (V) max	Absolute Max Supply Voltage max	RoHS Compliance Grade	Current sense	Digital status
VNF1048FTR	High-side switch Controller with intelligent fuse protection for 12 V, 24 V and 48 V automotive applications	1	BCD9	QFN-32L WF	6	60	70	Ecopack2	true	false

LED Drivers

Overview

ST offers linear and switching **LED driver ICs** specifically designed for automotive interior and exterior LED lighting applications.

Equipped with a set of protection and diagnostic functions and designed to minimize external component count, they provide a compact and optimized solution. With on-chip serial peripheral interface (SPI) and other specific functionalities, they represent ideal companions to a microcontroller.

All LED driver ICs are manufactured and qualified to meet and exceed Automotive industry requirements.

Automotive-grade LED drivers include:

- Constant current DC–DC converter LED drivers
- Flexible high power LED drivers
- High-side LED drivers



Success story

and discover how **Audi AG cooperated with ST and OLEDworks** to develop and deliver a next-generation OLED solution for an automotive rear lighting system. Thanks to customized and animated lighting patterns controlled by our multichannel high-side driver ICs, this unique design styling provides additional value in customer safety.

Automotive Analog and Power/LED Drivers

Part Number	General Description	Package	Grade	Supply Voltage (V) max	Supply Voltage (V) min	Other Features
ALED1262ZT	Automotive-grade 12-channel LED driver with open detection, local dimming, busdriven and standalone operations	HTSSOP24	Automotive	-	-	-
ALED1642GW	16 Channels LED driver with error detection, current gain control and 12/16 bit-PWM brightness control for automotive applications	HTSSOP24	Automotive	-	-	Error detection, gain control and PWM brightness control
ALED6000	Automotive 3A single channel LED driver with integrated DC-DC converter	HTSSOP16	Automotive	-	-	Dimming pin, Enable pin, Adjustable soft start, Adjustable current limitation, Auto recovery thermal shutdown, High efficiency at light load
ALED6001	Automotive grade PWM-dimmable single channel LED driver with integrated boost controller	HTSSOP16	Automotive	-	-	Boost, buck-boost and Sepic topologies, analog and PWM dimming, high side LED current sensing , LED overcurrent protection
ALED7707	6-row 85 mA LEDs driver with boost regulator for LCD panel backlights	VFQFPN 24 5x5x1.0	Automotive	-	-	External synch
ALED8102S	8 Channels LED driver with direct switch control	HTSSOP16	Automotive	-	-	-
L99CL01XP	8 channel high-side LED driver for automotive applications	PowerSSO 36	Automotive	24	6	-
L99LD21	High power LED driver for automotive applications	VFQFPN 6X6	Automotive	24	5.5	Buck-boost cascaded topology
L99LDLH32	32 channels LED driver with Automotive CAN FD Light interface	VFQFPN 48 7x7x1.0 mm	Automotive	28	5.5	High Side configuration; LED Output Voltage: up to 35V - LED Output Current: up to 15mA per channel
STAP08DP05	Low voltage 8-bit constant current LED sink driver with output error detection for automotive applications	HTSSOP16	Automotive	-	-	Full Error Output Detection, TSD, UVLO
STAP16DPPS05	Low voltage 16-bit constant current LED sink driver with output error detection and auto power-saving for automotive applications	HTSSOP24	Automotive	-	-	Full Error Output Detection, auto power saving, TSD, UVLO
L99LD01	High Efficiency Constant Current Led Driver	LQFP 32 7x7x1.4 mm	Automotive	24	5.6	Designed to be used in boost, buck-boost and fly back converter topologies
L99LD02	Dual-phase boost DC/DC controller	QFN-32L WF	Automotive	28	5.5	Boost output: 80V
L99LD20	High power LED driver for automotive applications	VFQFPN 6X6	Automotive	24	5.5	Two independent buck stages for LED current regulation

Linear Voltage Regulators

Overview

ST offers a wide range of voltage regulators intended for **automotive applications**.

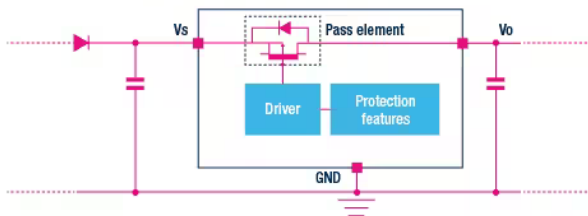
Featuring a set of LDO voltage regulators with 5 V and up to 500 mA load-current capability, the **L49 series** in BCD4 technology guarantees a very low dropout voltage of 400/500 mV and low quiescent current. Embedding additional features such as reset, watchdog and enable pins, together with short-circuit and thermal protections, these LDO regulators are suitable to supply microprocessor systems in automotive applications.

Designed to meet stricter line disturbance and noise rejection requirements, the **L5 series** in BCD5 technology ensures accuracy is kept over wide temperature range, line and load variations. These low dropout linear regulators also come with an early warning circuit that monitors the input voltage and compares it with an internal voltage reference.

The L99VR0 series in BCD9 technology offers 8 fixed and configurable output voltages from 0.8 to 5V and up to 500 mA load-current capability. Able to operate both in post regulation, attached to a pre-regulated voltage, or directly connected to battery, certain devices in this series feature enable, reset, autonomous watchdog, advanced thermal warning, fast output discharge and IShort control functions.

These products are suitable for all the automotive applications including power supplies in body modules, junction boxes, cluster instrumentation, sun roof, door modules, keyless entry, and sensors.

Schematic diagram for an L5 series voltage regulator



Automotive Analog and Power/Linear Voltage Regulators

Part Number	General Description	Package	Grade	Operating Range	Number of Outputs typ	Output Type	Output Voltage (V)	Configurable Output Voltage (V)	Output Current (mA)	Output Tolerance typ	Dropout Voltage (mV) typ	Dropout Voltage (mV) max	RESET Output	Enable Pin	Early Warning	Watchdog Timer	Watchdog Enable	Supply Current (Standby) (µA) typ	Quiescent current (µA) (@ Low Load) typ
L4938EPD	Advanced Voltage Regulator	PowerSO-20	Automotive	Automotive	2	Fixed	5	-	400	2	300	600	Open-Drain Active Low	true	true	false	false	90	65
L4979MD	Automotive Low Drop Voltage Regulator	SO-20	Automotive	Automotive	1	Fixed	5	-	150	2	200	400	Open-Drain Active Low	true	false	true	false	6	100
L4988	Automotive Low Drop Voltage Regulator	SO-8	Automotive	Automotive	1	Fixed	5	-	200	2	270	500	Open-Drain Active Low	false	false	true	true	75	93
L4989MD	Automotive Low Power Voltage Regulator	SO-20	Automotive	Automotive	1	Fixed	5	-	150	3	180	400	Open-Drain Active Low	false	false	true	true	69	110
L4993	Automotive Low Drop Voltage Regulator With Watchdog	SO-20,SO-8	Automotive	Automotive	1	Fixed	5	-	150	2	200	400	Open-Drain Active Low	false	false	true	true	79	100
L4995	Automotive 5V, 500mA Low Drop Voltage Regulator	PowerSO 12,PowerSSO 24	Automotive	Automotive	1	Fixed	5	-	500	2	270	500	Open-Drain Active Low	true	false	false	false	3	90
LS050	5V Low Drop Linear Voltage Regulator for Automotive Application	SO-8	Automotive	Automotive	1	Fixed	5	-	50	2	-	500	-	true	false	false	false	5	50
LS150BN	Automotive 5V Low Dropout Voltage Regulator	SOT-223	Automotive	Automotive	1	Fixed	5	-	150	2	-	500	Open-Drain Active Low	false	false	false	false	-	50
LS150CI	Automotive 5V Low Dropout Voltage Regulator	PowerSSO 12	Automotive	Automotive	1	Fixed	5	-	150	2	-	500	Open-Drain Active Low	false	true	false	false	-	55
LS150CS	Automotive 5V Low Dropout Voltage Regulator	SO-8	Automotive	Automotive	1	Fixed	5	-	150	2	-	500	Open-Drain Active Low	false	true	false	false	-	55
LS150GJ	Automotive 5V Low Drop Voltage Regulator	PowerSSO 12	Automotive	Automotive	1	Fixed	5	-	150	2	-	500	Open-Drain Active Low	true	false	false	false	5	55
LS300AH7	Automotive 5V Low Dropout Voltage Regulator	TO-252 6L	Automotive	Automotive	1	Fixed	5	-	300	2	-	500	Open-Drain Active Low	true	false	false	false	5	55
LS300GJ	Automotive 5V Low Drop Voltage Regulator	PowerSSO 12	Automotive	Automotive	1	Fixed	5	-	300	2	-	500	Open-Drain Active Low	true	true	false	false	5	55
L9777	Low power voltage regulator	PowerSSO 12	Automotive	Automotive	2	Fixed	5	-	200	2	200	1500,400	Open-Drain Active Low	true	false	true	true	3	100
L99VR01	Automotive Linear Voltage Regulator with Configurable Output Voltage having 200mA current capability	PowerSSO 12,SO-8	Automotive	Automotive	1	Configurable	-	0.8,1.2,1.5,1.8,2.5,2.8,3.3,3.5,0	200	2	-	530	Open-Drain Active Low	true	false	true	true	1	75
L99VR02J	Automotive Linear Voltage Regulator with Configurable Output Voltage having 500mA current capability	PowerSSO 12	Automotive	Automotive	1	Configurable	-	0.8,1.2,1.5,1.8,2.5,2.8,3.3,3.5,0	500	2	-	500	Open-Drain Active Low	true	-	true	true	1	-
LD1086	1.5 A adjustable and fixed low drop positive voltage regulator	D2PAK,DFN8 4x4,DPAK,TO-220	Automotive,Industrial	Automotive	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
LD39100	1 A low quiescent current low noise voltage regulator	DFN6 3x3	Automotive,Industrial	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
LD59150	1.5 A Low Dropout Linear Regulator with Programmable Soft-Start	VFQFPN 3X3X0.85 10L PITCH 0.50 A	Automotive,Industrial	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-
LDK130	300 mA low quiescent current very low noise LDO (automotive for SOT23-5L package)	DFN6 1.2x1.3,SOT23-5L,SOT323-5L	Automotive,Industrial	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
LDO40L	400 mA, 38 V low-dropout regulator, with 45 µA quiescent current	DFN6 3x3	Automotive	Automotive	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
LDS3985	Very low drop and low noise BiCMOS 300 mA voltage regulator	DFN6 3x3,SOT23-5L	Automotive,Industrial	Automotive	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
LFXX	Very low drop voltage regulator with inhibit	DPAK,PPACK 5,TO-220,TO-220FP	Automotive,Industrial	Automotive	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
L4925	Very Low Drop Voltage Regulator	PowerSO-20	Automotive	Automotive	1	-	5	-	500	2	300	600	-	-	-	-	-	-	190
L4949ED-E	Automotive Multifunction Very Low Drop Voltage Regulator	SO-8	Automotive	Automotive	1	Fixed	5	-	100	1	300	500	Open-Drain Active Low	false	true	false	false	-	200
L4949EP-E	Automotive Multifunction Very Low Drop Voltage Regulator	SO-20	Automotive	Automotive	1	Fixed	5	-	100	1	300	500	Open-Drain Active Low	false	true	false	false	-	200
L4979D	Automotive Low Drop Voltage Regulator	SO-8	Automotive	Automotive	1	Fixed	5	-	150	2	200	400	Open-Drain Active Low	true	false	true	false	6	100
L4989D	Automotive Low Power Voltage Regulator	SO-8	Automotive	Automotive	1	Fixed	5	-	150	3	180	400	Open-Drain Active Low	false	false	true	true	69	110
L99VR02XP	Dual Automotive Linear Voltage Regulator with Configurable Output Voltage (2x250mA Current Capability)	PowerSSO 36	Automotive	Automotive	2	Configurable	-	0.8,1.2,1.5,1.8,2.5,2.8,3.3,3.5,0	250	2	-	500	Open-Drain Active Low	true	false	true	true	1	-

Motor Driver ICs

Overview

The ST product portfolio offers a wide range of motor control ICs, well-suited for the most demanding automotive environments, covering the requirements of brushed DC motors, stepper motors and brushless DC motors, over an extensive range of voltage and current ratings.

Efficiency and **accuracy** of our motor drivers are guaranteed by a unique combination of low-loss PowerMOS output stages and advanced control circuitry. **Robustness** and **reliability** are provided by the integration of a comprehensive set of protection and diagnostic features.

The availability of products with different control interfaces, including PWM (Pulse Width Modulation) and serial interfaces, gives customers the opportunity to find the right solution, both in centralized or distributed control applications.

Automotive brushless DC motor drivers



Automotive stepper motor drivers



Automotive brushed DC motor drivers



New fully integrated, reliable and compact automotive-qualified drivers for DC motors

The new VIPower™ M0-7 H-bridge family is a set of full integrated and protected bridge circuits especially designed for DC motor control. Covering a wide range of load conditions, thanks to scalable power stages and packages, its combination of state-of-the-art embedded DC or 20-kHz PWM speed control modes with an embedded protection mechanism makes it the ideal solution for driving DC motors in cars. Further embedded features including independent load current sensing on each branch of the H-bridge and open load in off-state as well as chip temperature and V_{CC} reading enhance system simplicity and flexibility, avoiding having to use external components. [Read more](#)



Automotive Analog and Power/Motor Driver Ics

Part Number	General Description	Product typology	Supply Voltage (V) min	Supply Voltage (V) max	Output Current-Max (A) nom	Bridge current limit (mA)	Bridge RDS(on) (mΩ)	Interface	PWM Control	Motor Type	Package
L9805E	Super smart power motor driver with 8-Bit MCU, RAM, EEPROM, ADC, WDG, Timers, PWM and H-bridge driver	Integrated system motor drive	6.4	18	-	Full 1x2A (2xHalf)	Full 1x90mΩ (2xHalf)	Others	-	Brushed DC	HI-QUAD 64 14x14
L9903	ISO9141 Motor Bridge Controller	Pre-driver	8	20	-0.01	-	-	Others	true	Brushed DC	SO-20
L9904	Motor bridge Controller	Pre-driver	8	28	-0.01	-	-	Others	true	Brushed DC	SO-20
L9907	3 phase gate driver for 6step or FOC controlled Brushless	Pre-driver	4.2	54	0.65	-	-	SPI	true	Brushless DC	TQFP 64 10x10x1.0
L9908	Automotive 3-phase motor gate driver unit	Pre-driver	-	-	-	-	-	SPI	true	Brushless DC	TQFP 48 7x7x1.0
L9935	Two-Phase Stepper Motor Driver	Smart motor driver	8	24	-	Full 2x1.1A	Full 2x1.48#937	SPI	false	Stepper Motor	PowerSO-20
L9942	Stepper Motor Driver for Bipolar Motors with microstepping & programmable current profile	Smart motor driver	7	20	-	Full 2x1.3A	Full 2x1.48#937	SPI	true	Stepper Motor	PowerSSO 24
L9958	SPI Controlled H-Bridge	Smart motor driver	4	28	14	Full 1x2.5/4/6/6/8.6A	Full 1x0.38#937	SPI	true	Brushed DC	PowerSO 16,PowerSO-20,PowerSSO 24
L9959	Single / Dual PMOS High-side H-bridge	Smart motor driver	4	28	14.4	Full 1x2.5/4/6/6/8.6A,Full 2x2.5/4/6/6/8.6A	Full 1x0.54#937,Full 2x0.54#937	SPI	true	Brushed DC	PWSSO 36,PowerSSO 24,PowerSSO 36
L9960	H-bridge	Smart motor driver	4	28	14.9	Full 1x3.6/5.5/6.6/8.6A	Full 1x0.48#937	SPI	true	Brushed DC	PowerSSO 36
L9960T	Dual H-bridge	Smart motor driver	4	28	14.9	Full 2x3.6/5.5/6.6/8.6A	Full 2x0.48#937	SPI	true	Brushed DC	PWSSO 36
L9969S	Automotive chip for single and dual H-bridge	Smart motor driver	-	-	-	-	-	-	-	Brushed DC	PowerSSO 24
L9969T	Automotive chip for single and dual H-bridge	Smart motor driver	-	-	-	-	-	-	-	Brushed DC	PowerSSO 36
L9969U	Automotive chip for single and dual H-bridge	Smart motor driver	-	-	-	-	-	-	-	Brushed DC	PowerSSO 36
L997ND	Dual Half Bridge Driver	Smart motor driver	7	16.5	-	Half 2x1.6A	Half 2x0.7#937	SPI	false	Brushed DC	SO-20
L99ASC03G	Brushless/Sensorless 3-phase motor pre-driver for	Pre-driver	6	28	0.2	-	-	SPI	true	Brushless DC	TQFP 48 7x7x1.0
L99H02	Motor bridge driver for automotive applications	Pre-driver	6	28	0.5	-	-	SPI	true	Brushed DC	LQFP 32 7x7x1.4 mm,PowerSSO 36
L99H92	H-Bridge Gate Driver for Automotive Applications	Pre-driver	4.51	28	-	-	-	SPI	false	Brushed DC	QFN-32L WF,TQFP 32 7x7x1.0
L99MD01	Octal Half-Bridge Driver with SPI control for Automotive Application	Smart motor driver	3	5.3	2	Half 8x0.8A	typ. 900 (HS), 640 (LS)	SPI	false	Stepper Motor	PowerSSO 36
L99MD02	Hexa Half-Bridge Driver with SPI control for Automotive Application	Smart motor driver	3	5.3	-	Half 6x0.8A	Half 6x1.6#937	SPI	false	Brushed DC	PowerSSO 36
L99SM81V	Programmable Stepper Motor Driver for Automotive Applications with Micro-Stepping and Stall Detection	Smart motor driver	6	28	-	Full 2x1.9A	Full 2x1.4Ω	SPI	true	Stepper Motor	PowerSSO 36,VFQFPN 6X6
VNH3SP30-E	AUTOMOTIVE FULLY INTEGRATED H-BRIDGE MOTOR	Smart motor driver	5.5	36	-	Full 1x30A (2xHalf)	Full 1x45mΩ (2xHalf)	Others	true	Brushed DC	SO-30 Multi Power
VNH5019A-E	Automotive fully integrated H-bridge motor driver	Smart motor driver	5.5	24	-	Full 1x50A (2xHalf)	Full 1x19mΩ (2xHalf)	Others	true	Brushed DC	SO-30 Multi Power
VNH5200AS-E	Automotive fully integrated H-bridge motor driver	Smart motor driver	5.5	18	-	Full 1x12A (2xHalf)	Full 1x200mΩ (2xHalf)	Others	true	Brushed DC	SO-16
VNH7040AY	Automotive fully integrated H-bridge motor driver	Smart motor driver	4	28	-	Full 1x49A	Full 1x40mΩ	Others	true	Brushed DC	PSSO 36
VNH7070AS	Automotive fully integrated H-bridge motor driver	Smart motor driver	4	28	-	Full 1x22A (2xHalf)	Full 1x70mΩ (2xHalf)	Others	true	Brushed DC	SO-16
VNH7070AY	Automotive fully integrated H-bridge motor driver	Smart motor driver	-	41	41	-	-	-	true	Brushed DC	PSSO 36
VNH7070BAS	Automotive fully integrated H-bridge motor driver	Smart motor driver	4	28	-	Full 1x22A (2xHalf)	Full 1x70mΩ (2xHalf)	Others	true	Brushed DC	SO-16
VNH7100BAS	Automotive fully integrated H-bridge motor driver	Smart motor driver	4	28	-	Full 1x18A (2xHalf)	Full 1x100mΩ (2xHalf)	Others	true	Brushed DC	SO-16
VNH9013Y	Automotive integrated H-bridge	Smart motor driver	4	36	-	Full 1x40A (2xHSD;2xLSD)	Full 1x13mΩ (2xHSD;2xLSD)	Others	false	Brushed DC	PSSO 36
VNHD7008AY	H-bridge motor driver for automotive DC motor driving	Smart motor driver	4	28	-	Full 1x77A (2xHalf)	Full 1x8mΩ (2xHalf)	Others	true	Brushed DC	PWSSO 36
VNHD7012AY	H-bridge motor driver for automotive DC motor driving	Smart motor driver	4	28	60	Full 1x75A (2xHalf)	Full 1x12mΩ (2xHalf)	-	true	Brushed DC	PWSSO 36
L99ASC03	Brushless/Sensorless 3-phase motor pre-driver for automotive applications	Pre-driver	6	28	0.7	-	-	Others,SPI	-	Brushless DC	TQFP 48 7x7x1.0
L99H01	Motor Bridge Driver For Automotive Applications	Pre-driver	6	28	0.5	-	-	SPI	true	Brushed DC	LQFP 32 7x7x1.4 mm,PowerSSO 36
VNS770AKP-E	Quad smart power solid state relay for complete H-bridge	Smart motor driver	4.5	16.5	-	Full 1x8.5A (2xHSD;2xLSD)	Full 1x280mΩ (2xHSD;2xLSD)	Others	false	Brushed DC	SO-28
VNH5050A-E	Automotive fully integrated H-bridge motor driver	Smart motor driver	5.5	18	-	Full 1x42A (2xHalf)	Full 1x50mΩ (2xHalf)	Others	true	Brushed DC	PSSO 36
VNH5180A-E	Automotive fully integrated H-bridge motor driver	Smart motor driver	5.5	18	-	Full 1x12A (2xHalf)	Full 1x180mΩ (2xHalf)	Others	true	Brushed DC	PSSO 36

Multi-Output Driver ICs

Overview

Housing multiple half-bridges and high-side switches on a single IC, our **multi-output driver ICs** are designed to drive small automotive loads and medium current DC motors as well as providing protected supply lines.

Typically controlled via an SPI serial wire interface and featuring protection and diagnostic functions, MOD devices are mostly used in body applications to control small loads but also are found throughout other automotive segments often in combination with ST products.

Our multi-output driver ICs are commonly housed in a **PowerSSO-36 package**.

Key Features

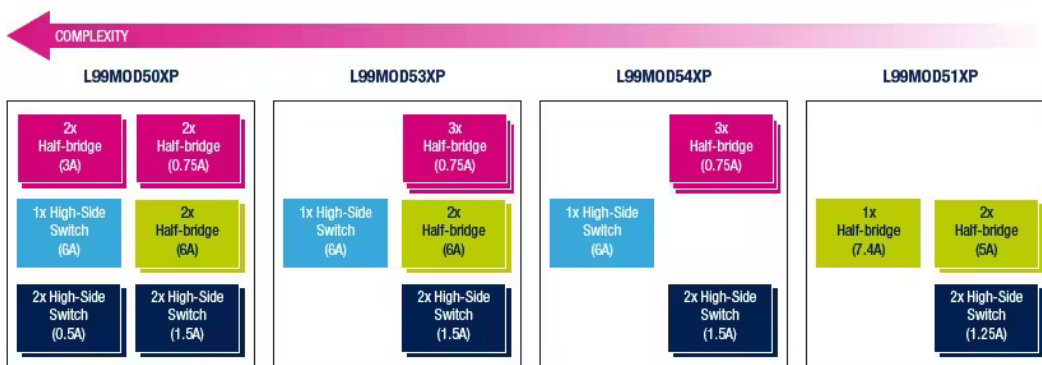
- AEC-Q100 qualified
- Integrated Serial Peripheral Interface (SPI) to control operating modes and for diagnostics

Protection and Diagnostic

- Protected against over-current and over-temperature conditions
- Auto-recovery for driving high in-rush loads
- Over-current, open-load and over-temperature as typical diagnostics

Scalable concept

- All devices are hardware compatible and software adaptable
- The drivers support motors, resistive loads and bulb/LED lighting systems



Automotive Analog and Power/Multi-Output Driver ICs

Part Number	General Description	Package	Grade	Supply Voltage (V) min	Supply Voltage (V) max	RoHS Compliance Grade	PWM Control	Bridge		Switch		Interface	Motor Type
								I _{lim} (mA) typ	R _{DS(on)} (mΩ) typ	I _{lim} (mA) typ	R _{DS(on)} (mΩ) typ		
L99MOD50XP	Multi-Output Driver for Automotive Applications	PowerSSO 36	Automotive	7	28	Ecopack2	true	Full 1x6A; Half 2x3A; 2x0.75A	Full 1x150mΩ; Half 2x300mΩ; Half 2x1600mΩ	HSD 1x6A; HSD 2x1.5/0.4A; HSD 2x0.5	HSD 1x90mΩ; HSD 2x500/1800mΩ; HSD 2x1600mΩ	SPI	Brushed DC
L99MOD51XP	Multi-output Driver for Automotive Applications	PowerSSO 36	Automotive	7	28	Ecopack2	true	Half 1x7.4A; Half 2x5A	Half 1x150mΩ; Half 2x200mΩ	HSD 2x1.25A	HSD 2x800mΩΩ	SPI	Brushed DC
L99MOD53XP	Multi-Output Driver for Automotive Applications	PowerSSO 36	Automotive	7	28	Ecopack2	true	Full 1x6A; Half 3x1.5A	Full 1x150mΩ; Half 3x800mΩ	HSD 2x1.5/0.35A; HSD 1x6A	HSD 2x500/1800mΩ; HSD 1x100mΩ	SPI	Brushed DC
L99MOD54XP	Multi-Output Driver for Automotive Applications	PowerSSO 36	Automotive	7	28	Ecopack2	true	Half 3x0.75A	Half 3x800mΩΩ	HSD 2x1.5/0.35A; HSD 6A	HSD 2x500/1800mΩ; HSD 1x100mΩ	SPI	Brushed DC

Power Management and System Basis ICs

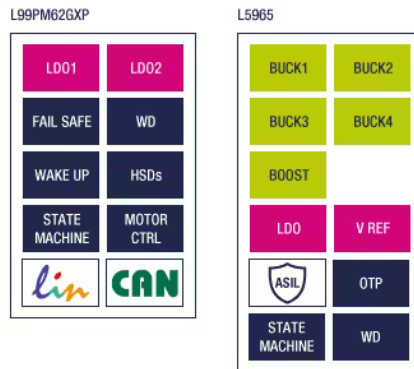
Overview

ST provides a large selection of Power Management ICs and System Basis Chips (SBC) specifically designed for automotive electronic systems.

In addition to infotainment systems, instrumentation clusters, and advanced driver-assistance systems (ADAS), these highly versatile devices are tailored for USB hubs, Seat, HVAC, Roof, Trunk and Door modules as well as various electronics control units (ECU) and gateways.

Key features:

- Linear and switching voltage regulators
- Physical LIN and CAN transceivers
- High-side switches
- Diagnostic and protection
- Voltage monitors
- Dedicated control bus (I2C or SPI)
- Rail sequencing for safety applications
- Fail-safe outputs
- Wake-up inputs
- All products AEC-Q100 qualified



To improve system integration, our power management IC offers five high-side drivers, two low-side drivers and two op amps as well as LIN and HS CAN physical communication layers. Designers can also take advantage of its standard SPI interface useful for device control and diagnostics as well as for the development of generic software.

Automotive engineers working on ASIL-compliant applications will especially appreciate our multiple power management IC for automotive vision and radar systems.

To help developers find the best solution for their applications, ST offers with intuitive graphical user interfaces to reduce design time and costs.

Automotive Analog and Power/Power Management and System Basics Ics

Part Number	General Description	Operating Voltage [V] min	Operating Voltage [V] max	Linear regulator		SMPS			Other Features	Transceivers	Interfaces	Package	Application Type	
				V _{OUT} [V] (@ I _{LOAD}) typ	Number of Outputs typ	V _{OUT} [V] (@ I _{LOAD}) typ	Number of Outputs typ	Operating Frequency [kHz] min						Operating Frequency [kHz] max
A5970AD	Up to 1 A step-down switching regulator for automotive applications	-	-	-	-	-	-	-	SYNCHRONIZATION,VREF	-	-	SO-8	-	
A5970D	Up to 1 A step-down switching regulator for automotive applications	-	-	-	-	-	-	-	SYNCHRONIZATION,VREF	-	-	SO-8	-	
A5972D	Up to 1.5 A step-down switching regulator for automotive applications	-	-	-	-	-	-	-	SYNCHRONIZATION,VREF	-	-	SO-8	-	
A5973AD	Up to 1.5 A step-down switching regulator for automotive applications	-	-	-	-	-	-	-	SYNCHRONIZATION,VREF	-	-	PowerSO-8	-	
A5973D	Up to 2 A step-down switching regulator for automotive applications	-	-	-	-	-	-	-	SYNCHRONIZATION,VREF	-	-	PowerSO-8	-	
A5975AD	Up to 2.5 A step-down switching regulator for automotive applications	-	-	-	-	-	-	-	SYNCHRONIZATION,VREF	-	-	PowerSO-8	-	
A5975D	Up to 3 A step-down switching regulator for automotive applications	-	-	-	-	-	-	-	SYNCHRONIZATION,VREF	-	-	PowerSO-8	-	
A6727	Single-phase PWM controller for automotive applications	-	-	-	-	-	-	-	-	-	-	SO-8	-	
A6902D	Up to 1 A step-down switching regulator with adjustable current limit for automotive applications	-	-	-	-	-	-	-	constant current control, HS current sense pins	-	-	SO-8	-	
A6984	36 V 400 mA synchronous step-down switching regulator	-	-	-	-	-	-	-	PGOOD,Vbias,adj Fsw,Selectable low noise-consumption mode	-	-	VFDFPN 4X4X1.0 10L PITCH 0.50	-	
A6985F	Automotive 38 V, 500 mA synchronous step-down switching regulator with 30 µA quiescent current	-	-	-	-	-	-	-	PGOOD,Vbias,adj Fsw,Selectable low noise-consumption mode	-	-	HTSSOP16	-	
A6986	38 V, 2 A synchronous step-down switching regulator with 30 µA quiescent current	-	-	-	-	-	-	-	adj Fsw,Selectable low noise-consumption mode	-	-	HTSSOP16	-	
A6986F	Automotive 38 V, 1.5 A synchronous step-down switching regulator with 30 µA quiescent current	-	-	-	-	-	-	-	adj Fsw,Fixed Voltage vers available,Selectable low noise-consumption mode	-	-	HTSSOP16	-	
A6986I	Automotive 38 V, 5W synchronous iso-buck converter	-	-	-	-	-	-	-	isolated Buck, adj Fsw,Selectable low noise-consumption mode	-	-	HTSSOP16	-	
A7985A	2 A step-down switching regulator for automotive applications	-	-	-	-	-	-	-	SYNCHRONIZATION,adj Fsw	-	-	PowerSO-8	-	
A7986A	3 A step-down switching regulator for automotive applications	-	-	-	-	-	-	-	SYNCHRONIZATION,adj Fsw	-	-	PowerSO-8	-	
A7987	60 V 3A asynchronous step-down switching regulator with adjustable current limitation for automotive	-	-	-	-	-	-	-	Adj. current limit	-	-	HTSSOP16	-	
AST1531	Up to 4 V, 3 A step-down 1.5 MHz switching regulator for automotive applications	-	-	-	-	-	-	-	PGOOD	-	-	VFDFPN 8 3x3x1.0	-	
AST1531HF	Up to 4 V, 3 A step-down 2.3 MHz switching regulator for automotive applications	-	-	-	-	-	-	-	PGOOD	-	-	VFDFPN 8 3x3x1.0	-	
LS956	Multifunction Voltage Regulator	9	18	-	4	-	-	-	-	-	-	PowerSO-20	Infotainment	
LS958	Multifunction Voltage Regulators	9	18	-	-	-	-	-	-	-	-	OUTLINE Pw 22 SMD	Infotainment	
LS962	Multiple linear/switching voltage regulator	4.1	18	selectable	3	1.2V to 8V @ 2.5A	1	150	400	2 x HSD, reset, battery detection	CAN	DC	PowerSO 36	Infotainment
LS963	Automotive dual monolithic switching regulator with LDO and HSD	3.5	26	selectable @ 250mA	1	selectable @ 3A	2	250	2000	HSD, voltage supervisors, independent supplies	-	n.a.	PowerSSO 36,VFOFPN 48 7x7x1.0 mm	Infotainment
LS965	Multiple power management for automotive vision and radar systems	4	32	selectable by OTP	2	selectable by OTP	5	400	2400	configurable by OTP cells, independent supplies, boost	-	SPI (with CRC)	VFQFPN 48 7x7x1.0 mm	ADAS,Chassis and Safety,Infotainment
LS901	Automotive power supply IC with multiple voltage regulators	5.5	18	-	2	-	1	418	512	Supervision&Diagnosis, watchdog, low power mode	-	-	PowerSSO 24	ADAS,General Purpose
LS936	Automotive Multiple Power Supply IC	4.5	19	-	-	-	-	1700	2000	-4-ch remote sensor I/F or 2-ch tracking regulator; -HS pre-driver for Fail Safe; - Pump Motor pre-drivers; - GPD driver (ON-OFF/PWM)	-	SPI	TQFP 64 10x10x1.0	ADAS,Braking,Chassis and Safety,Steering,Transmission
LS978	Multiple supply for engine control	4	26.5	5V @1A, 3.3V @ 1A, 1.5 @ 10mA, 3.3 @ 10mA	5	5.5 @2A	2	300	450	4 tracking regulators 5V/50mA,2 standby power regulators,independent reset signals	-	-	PowerSO 36	EMS
LS952GXP	Power Management System IC	6	18	5V @ 250mA - 5V @ 100 mA	2	2x5V	2	-	-	4 x Wake Up inputs for contact monitoring, Fail Safe output, 2 x Op Amp for current sense interfacing, inhibit input for Wake Up from external CAN	LIN	SPI	PowerSSO 36	Car Body and Convenience
LS99M6GJ	Power Management IC with LIN Transceiver	6	18	5V @ 100 mA	1	5V	1	-	-	Configurable Fail Safe output, ST SPI interface for mode control and diagnostic, Direct drive feature for HS	LIN	SPI	PowerSSO 16	Car Body and Convenience
LS99M6ZGXP	Power Management IC with LIN and High Speed CAN	4.5	18	5V @ 250mA - 5V @ 100 mA	2	2x5V	2	-	-	Complete 3 channel contact monitoring interface with programmable cyclic sense functionality, 4 internal PWM timers, 2 x Op Amp with rail-to-rail output (Vx) and low voltage inputs, Programmable periodic system Wake Up feature	HS-CAN,LIN	SPI	PowerSSO 36	Car Body and Convenience
LS99M7ZGXP	Advanced Power Management System IC with embedded LIN and high speed CAN Transceiver supporting CAN Partial Networking	4.5	18	5V @ 250mA - 5V @ 100 mA	2	2x5V	2	-	-	Complete 3 channel contact monitoring interface with programmable cyclic sense functionality, 4 internal PWM timers, 2 x Op Amp with rail-to-rail output (Vx) and low voltage inputs, Programmable periodic system Wake Up feature, HS CAN supporting CAN Partial Networking	HS-CAN,LIN	SPI	PowerSSO 36	Car Body and Convenience
SPS8081	Automotive Power Management IC with LIN and CAN-FD	6	28	5V/3.3V@250mA - 5V/3.3V@100mA	2	2x5V - 2x3.3V	2	-	-	Complete 2-channel contact monitoring interface (WU1 and WU2 input pins) with programmable cyclic sense functionality, one of them also with DIR functionality	CAN,LIN	32 bit SPI	QFN-32L WF	Car Body and Convenience
STPM06AS	PMIC for ADAS applications	4	32	selectable by OTP	2	selectable by OTP	2	400	2400	configurable by OTP, independent supplies, boost	-	SPI (with CRC)	VFQFPN 48 7x7x1.0 mm	ADAS,Chassis and Safety
STPM801	Hot Swap & Ideal Diode Controller for high redundancy power architectures	4	65	-	-	-	-	-	-	Reverse input protection, ideal diode, complies with the 16750 AC ripple test requirements	-	-	VFQFN 5x5x0.9 32+4L WETT. FLANKS	ADAS,Chassis and Safety
A5974D	Up to 2.5 A step-down switching regulator for automotive applications	-	-	-	-	-	-	-	SYNCHRONIZATION,VREF	-	-	PowerSO-8	-	
LS957	Multifunction Voltage Regulator	9	18	-	4	-	-	-	-	-	-	n.a.	MW 15L,PowerSO-20	Infotainment
LS959	Voltage regulator with very low stand-by current, reset, hold, backup, under/over voltage detection, overcurrent limitation	9	18	8.5V @ 200mA - 8/10V @ 1A - 3.3V @ 100mA - 3.3V @ 800mA	4	-	0	-	-	2 x HSD, reset, enable pins	-	-	MW 15L	Infotainment
LS964	Automotive Monolithic dual 3.5A step-down switching regulator with LDO	3.3	26	selectable @ 250mA	1	selectable @ 3.5A	2	125	2300	parallel mode, voltage supervisors, wd/reset, independent supplies	-	n.a.	LQFP	Infotainment
LS99M6ZXP	Power management IC with LIN and high speed CAN	6	18	-	-	-	-	-	-	-	HS-CAN,LIN	-	PowerSSO 36	-
LS99M7ZXP	Advanced power management IC, with embedded LIN and HS CAN transceiver, supporting CAN Partial Networking	6	18	-	-	-	-	-	-	-	HS-CAN,LIN	SPI, HS CAN, LIN	PowerSSO 36	Car Body and Convenience
SPS8100	Power management IC for highly integrated processors	6	28	5V@120mA for CAN FD supply, 5V/3.3V@10mA for for 7C ADC reference supply	2	(6.5 V, 5 V, 3.3 V)@3A for 2 configurable buck converter; (3.3 V, 1.25 V, 1.2 V, 1.1 V, 0.97 V)@6A for one configurable buck converter	3	-	-	Complete 2-channel contact monitoring interface (WU1 and WU2 input pins) with programmable cyclic sense functionality, one of them also with DIR functionality	HS-CAN	32 bit SPI	QFN 8X8 56+4L WETTABLE FLANKS	Car Body and Convenience

Powertrain ICs for ICE/HEV/EV

Overview

ST's powertrain ICs cover a variety of functions including voltage regulators, sensor interfaces, and load or motor drivers, which are the building blocks of typical Engine Control Units (ECU) found in a vehicle's main applications (engine management systems, transmission control systems, alternator regulators, etc.).

Different levels of integration can be achieved in order to accomplish the best tradeoff among flexibility, cost, space and performance.

Keeping with the electrification of the powertrain domain for next-generation hybrid electric vehicles (HEVs) and electric vehicles (EVs), ST has further extended its portfolio with a new family of , offering the state-of-the-art of ASSP battery monitoring and protection chips for high-reliability automotive applications and energy storage systems.

BCD, IGBT and SiC silicon technologies allowing the combination of digital, analog and power components are the key implementation enabler along with the large package portfolio with several pin-counts and power dissipation options.

In addition, ST offers a range of evaluation boards and software to help developers find the best solution for their application.

Alternator Regulators



Multi-function alternator voltage regulators with communication protocols

Engine Management



Engine Management systems for engines from 1 to 8 cylinders

Ignition controllers & drivers



High-voltage ignition-coil power driver ICs

Transmission



Electronically-controlled transmission systems ICs

Battery Management ICs



Highly-integrated ICs for Battery Management Systems (BMS)

Automotive Analog and Power / Powertrain ICs for ICE/HEV/EV/Alternator Regulators

Part Number	Operating Voltage (V) min	Operating Voltage (V) max	Set point voltage (V) (@ 30°C)	Set point tolerance (V) typ	Set point temp drift (mV/°C)	Field driver type	Starting speed (rpm) (@ R _{1(max)})	LRC cut-off speed (rpm) (@ R ₋)	LRC delay (S)	Starting delay time (S)	Other drivers	Interface	Package	Operating Temperature (°C) max	Operating Temperature (°C) min
L9911	7	18	14.4,14.5	0.15,0.4	-10,-3.5	High side	1320,1590	3000	2.5,9	0,0.5,2	Lamp,Relay	-	MW 8L	150	-40
L9914	8	16	13.8 (adj)	0.63	-	High side	830	3100	2.5	-	Lamp	RVC	MW 8L	150	-40
L9915	6	18	14.55 (adj)	0.18	-3.5	High side	1380	3000	5	5	Lamp	C-term	MW 8L	150	-40
L9916	8	34	14.5 (adj)/29.0 (adj)	0.25	0/-2.5/-3.5/-7/-10	High side	900/1200/1500/1800	1500/2800/3000/3200	2.5/3/5/6/7.5/9/10/12	0.5/2.5/5/10	Lamp,Relay	I2C	DICE SAWN T&R,MW 8L	150	-40
L9916B	6	34	14.5 (adj + opt. 50mV)/29.0 (adj + opt 100mV)	0.25	0/-2.5/-3.5/-7/-10	High side	900/1200/1500/1800	1500/2800/3000/3200	2.5/3/5/6/7.5/9/10/12	0.5/2.5/5/10	Lamp,Relay	I2C	DICE SAWN T&R,MW 8L	150	-40
L9918	6	18	10.6 to 10 configurable via LIN	0.15	-	High side	570	2400 to 8010 configurable	0 to 15 configurable	-	-	LIN	DICE SAWN T&R,PENTAWATT 5	150	-40
L9409	8	28	14.45	0.2	-10	High side	1600	3000	3.5	2.9	Lamp,Relay	-	MW 8L	150	-40
L9468	10	20	14.72	0.25	-15.6	High side	701.5	3100	2.5	0	Lamp	-	MW 8L	150	-40
L9474N	8	16	13.8 (adj)	0.63	RVC or FLAT	High side	720	3100	2.5	-	Lamp	RVC	MW 8L	150	-40

Automotive Analog and Power / Powertrain ICs for ICE/HEV/EV/Automotive Battery Management ICs

Part Number	General Description	Package	Grade	RoHS Compliance Grade	Operating Temperature (°C) min	Operating Temperature (°C) max	Supply Voltage (V) min	Supply Voltage (V) max
L9961	Chip for industrial battery management applications up to 5 cells	VFQFPN 5X5X1 32L P0.5	Industrial	Ecopack2	85	-40	4.3	25
L9963E	Automotive chip for battery management applications with daisy chain up to 31 devices	TQFP 64 10x10x1.0	Automotive Safety	Ecopack2	105	-40	9.6	70
L9963T	Automotive general purpose SPI to isolated SPI transceiver	SO-16	Automotive	Ecopack2	105	-40	4.5	5.5
L9963	Automotive chip for battery management applications	TQFP 64 10x10x1.0	Automotive Safety	Ecopack2	-	-	9.6	70

Automotive Analog and Power / Powertrain ICs for ICE/HEV/EV/Engine Management

Part Number	General Description	Operating Voltage (V) min	Operating Voltage (V) max	Linear regulator output tolerance max	Features	Interfaces	Watchdog Timer	PWM Control	Other Features	Operating Temperature (°C) min	Operating Temperature (°C) max	Package
L9177	Peripheral on chip for low end engine control	6	18	2	- 3xRelay 1.5Ω@1.2A, - 2xinjector 0.6Ω@2.8A, - O2 Heater 0.5Ω@3.8A, - Tachometer 5Ω@0.1A, - Lamp 1.5Ω@1.2A, - Stepper 2.6Ω@0.85A, - HSD 14Ω@0.1A	SPI, 6xinput, ISO9141 (K-Line), VRS	false	true	- Reset, - Diagnostics, OverCurrent, OverTemperature, ShortToGround, OpenLoad, ShortToBattery	-40	150	PowerSO 46
L9177A	Automotive engine management control IC for small engines	6	18	2	- 3xRelay 1.5Ω@1.2A, - 2xinjector 0.6Ω@2.8A, - O2 Heater 0.5Ω@3.8A, - Tachometer 5Ω@0.1A, - Lamp 1.5Ω@1.2A, - Stepper 2.6Ω@0.85A, - HSD 14Ω@0.1A	SPI, 6xinput, ISO9141 (K-Line), VRS	false	true	- Reset, - Diagnostics, OverCurrent, OverTemperature, ShortToGround, OpenLoad, ShortToBattery	-40	150	TQFP 64 10x10x1.0
L9524C	Glow plug system control IC	5	18	-	- 4xMOS Pre-driver (HSD), - 6xCurrent sensing, - 1xRelay pre-driver	-	-	true	- 6xOp modes, - Diagnostics, OpenLoad, ShortToGround, OverCurrent, ShortToBattery, OverTemperature	-40	125	SO-24
L9779WD	Multifunction IC with MSC interface for Engine Management System	6	18	2	- 1xMain Relay 2.4Ω@0.7A, - 1xStart Relay 1.5Ω@1A, - 5xRelay 1.5Ω@1A, - 4xinjector 0.72Ω@3A, - 2xO2 Heater 0.47Ω@7.8A, - 1xLSD 0.72Ω@3.7A, - 2xLSD 20Ω@70mA, - Stepper/(4xHSD/4xLSD) 1.5Ω@0.6A, - 4xIGBT Pre-driver, - 2xMOS Pre-driver	MSC, ISO9141 (K-Line), CAN, VRS	true	false	- Smart Reset, - Diagnostics, OpenLoad, ShortToGround, OverCurrent, ShortToBattery, OverTemperature	-40	150	HI-QUAD 64 14x14
L9779WD-SPI	Multifunction IC for engine management system	6	18	2	- 1xMain Relay 2.4Ω@0.7A, - 1xStart Relay 1.5Ω@1A, - 5xRelay 1.5Ω@1A, - 4xinjector 0.72Ω@3A, - 2xO2 Heater 0.47Ω@7.8A, - 1xLSD 0.72Ω@3.7A, - 1xLSD 20Ω@70mA, - Stepper/(4xLSD) 1.5Ω@1A, - 4xIGBT Pre-driver	SPI, 12xinput, ISO9141 (K-Line), CAN, VRS	true	false	- Smart Reset, - Diagnostics, OpenLoad, ShortToGround, OverCurrent, ShortToBattery, OverTemperature	-40	150	HI-QUAD 64 14x14
L9781	Multiple valve pre-driver for diesel and gasoline direct injection	5	26	-	- 1xDC-DC controller up to 80V, - 4xinjectors peak-hold controllers (2 banks including HS and LS pre-driver and current sensing), - 1xFuel pump peak-hold controller (with current sensing)	SPI, Parallel	-	-	- Vboost HS pre-driver @50kHz, - Vbat HS pre-driver @100kHz, - LS pre-driver @100kHz, - Diagnostics, OpenLoad, ShortToGround, OverCurrent, ShortToBattery	-40	150	LQFP 64 10x10x1.4 mm
L9788	Multifunction IC for Automotive Engine Management System	4.8	18	2	Drivers and I/F for EMS	MSC, LIN, CAN, VRS	true	true	- Smart Reset, - Diagnostics, OpenLoad, ShortToGround, OverCurrent, ShortToBattery, OverTemperature, CAN FD	-40	125	LQFP-EP 100 14x14x1.4
L9856	High voltage high side driver	4.4	6.5	-	1xMOS Pre-driver for magnetic injecting (gate current Max. 500mA)	-	-	-	- Under voltage protection, - Bootstrap voltage up to 170V	-55	150	SO-8

Automotive Analog and Power / Powertrain ICs for ICE/HEV/EV/Ignition Controllers and Drivers

Part Number	General Description	Package	Supply Voltage (V) max	Supply Voltage (V) min	High Voltage Clamp (V) typ	Current Limit (A) max	RoHS Compliance Grade
VBG08H-E	Ignition coil driver power I.C.	HPAK + 1 (OCTAPAK)	28	6	360	10.5	Ecopack2

Automotive Analog and Power / Powertrain ICs for ICE/HEV/EV/Transmission

Part Number	General Description	Package	Operating Voltage (V) min	Operating Voltage (V) max	Linear regulator output tolerance nom	Switch Drain current limit (mA) typ	Switch RDS(on) (mΩ) typ	Other Features	Interfaces	Watchdog Timer	RESET Output	Operating Temperature (°C) min	Operating Temperature (°C) max	Application Type	SMPS	
															Operating Frequency (kHz) max	SMPS Operating Frequency (kHz) max
L9300	Flexible U-chip for braking & transmission	TQFP 80 14x14x1.0 ExPad Down,TQFP 80 14x14x1.0 ExPad Up	5	18	2	LSD/HSD 6x2A	LSD/HSD 6x0.5Ω	- 2xHS NFET pre-drivers; - Fail-Safe Outputs; - Diagnostics: OpenLoad, OverVoltage, UnderVoltage, OverTemperature	SPI; CAN; GPO; 4-ch active sensor I/F	true	Bi-directional	-40	175	Braking,Transmission	-	470
L9396	Automotive Multiple Power Supply IC	TQFP 64 10x10x1.0	4.5	19	2	-	-	- 4-ch remote sensor I/F or 2-ch tracking regulator; - HS pre-driver for Fail Safe; - Pump Motor pre-drivers; - GPO driver (ON-OFF/PWM)	SPI	true	Open-Drain	-40	175	ADAS,Braking,Chassis and Safety,Steering,Transmission	2000	2000

Automotive Analog and Power/Special Functions

Part Number	General Description	Package	Grade	Supply Voltage (V) min	Supply Voltage (V) max	Other Features	Application Type
L9780	Wide range air fuel sensor control interface	LQFP 48 7x7x1.4 mm	Automotive	-	-	Compatible with the main WRAF sensors in the market: Bosch; NTK; Delphi; Denso	EMS
L9966	FlexInput IC for automotive applications	TQFP 48 7x7x1.0	Automotive	5.5	36	Programmable pull-up/down current sources, ADC for voltage and resistance measurements, Variable reluctance sensor / Hall sensor Interface, 1 analog output channel + 4 digital output channels	EMS
L99SD01-E	Integrated solenoid driver for automotive applications	PWSSO 36	Automotive	-	-	- Excitation (S1) & Recirculation (S2) switches 60mΩ@14A, - Switch S1 clamp voltage = 45 V (min), - Current sense amplifier with internal sense resistor, - S1 switch PWM operation above 10 KHz, - Flag of clamp activation at the end of injection cycle, - Diagnostics, OpenDrain, UnderVoltage, OverVoltage, OverCurrent, OpenLoad, OverTemperature	-
VN5R003H-E	3 mOhm reverse battery protection switch	TO-252 6L	Automotive	-16	41	Reverse battery protection to an electronic module	-

Transceivers

Overview

ST offers monolithic ICs containing standard ISO 9141 compatible interface functions and bidirectional transceivers for signal conditioning that operate with a CAN controller and meet ISO/DIS 11898 up to 1 Mbaud.

Automotive Analog and Power/Transceivers

Part Number	General Description	Package	Operating Voltage (V) min	Operating Voltage (V) max	Features	Interfaces	Operating Temperature (°C) min	Operating Temperature (°C) max	Application Type
L9613	Medium Speed Data interface	SO-8	4.8	36	- Compatible with ISO 9141 interface & functions; - Transmission rate \geq 130 Kbaud; - Reverse battery protected down to VS -24 V	-	-40	150	-
L9615	High Speed Can Bus Transceiver	SO-8	4.5	5.5	- Compatible with ISO/DIS 11898; - Short circuit protection from -5V to 36V; - Slope control to reduce EMI and RFI; - High speed mode: <500 Kbaud; - Low speed mode: <125 Kbaud	-	-40	150	-
L9616	Automotive High Speed Can Bus Transceiver	SO-8	4.5	5.5	- Compatible with ISO/DIS 11898; - Short circuit protection from -5V to 36V; - Slope control to reduce EMI and RFI; - High speed mode: <1 Mbaud; - Low speed mode: <250 Kbaud	-	-40	150	-
L9637	Monolithic bus driver with ISO9141 Interface	SO-8	4.5	36	- Compatible with ISO 9141 interface & functions; - Transmission rate \geq 500 Kbaud; - Low quiescent current in off condition(120 μ A); - Reverse battery protected down to VS -24 V	-	-40	150	-
L9663	Automotive PSIS transceiver IC	QFN 5X5 0.5 PITCH DIMPLE ATK1,TQFP 32 7x7x1.0	4.8	35	- 2xPSIS (async/sync) compatible with v1.3 and v2.0 revisions; - 125 kbps data transmission (optional 83.3 kbps and 189 kbps); - Integrated FLL module for high accuracy timing control	32-bit SPI	-40	140	Airbags,Braking,Chassis and Safety,Steering

Automotive Analog and Power/Valve Driver ICs

Part Number	General Description	Number of Channels typ	Operating Voltage (V) min	Operating Voltage (V) max	$R_{DS(on)}$ (m Ω) typ	Channels description	I_{lim} (A) typ	Clamp Voltage (V) max	Interfaces	PWM Control	Package
L9301	Octal low side driver or quad low side plus quad high side driver	12	4	18	-	-	-	-	-	-	PowerSSO 36
L9305	Automotive 4-channel valve driver	4	5.5	36	375	4-channel independent LSD/HSD current controlled drivers	-	38	-	true	PowerSSO 36, TQFP 48 7x7x1.0
L9349-LF	Quad intelligent power low side switch	4	4.5	32	LSD 2x0.2 Ω ; LSD 2x0.3 Ω	4 SW	LSD 2x5A; LSD 2x3A	60	Parallel	false	PowerSO-20
L9352B	4-channel valve driver	4	4.8	18	LSD 4x0.2 Ω	2SW+2CC/fwd	LSD 2x5A; LSD 2x2.5A (adj)	60	Parallel	true	PowerSO 36
L9945	Automotive fully configurable 8-channel High/Low side MOSFET	8	3.8	36	-	-	-	-	SPI	-	TQFP 64 10x10x1.0
L9347	4-channel valve driver	4	4.8	18	LSD 2x0.2 Ω ; LSD 2x0.35 Ω	2SW+2CC/fwd	LSD 2x5A; LSD 2x2.5A (adj)	60	Parallel	true	PowerSO 36
L9348	4-channel valve driver	4	4.8	18	LSD 2x0.2 Ω ; LSD 2x0.35 Ω	2SW+2PWM/fwd	LSD 2x5A; LSD 2x3A	60	Parallel	true	PowerSO 36
L9374LF	4-channel valve driver	4	5.2	20	LSD 2x0.14 Ω ; LSD 2x0.25 Ω	4 controlled channel LS driver with integrated recirculation diodes	LSD 2x5A/7A; LSD 2x1.8A (adj)	40	SPI	true	PowerSO 36

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