



DISCRETE THYRISTORS

Phase Control Discrete

Surface-Mount and Through-Hole Phase Control Thyristors, AEC-Q101 Qualified Available

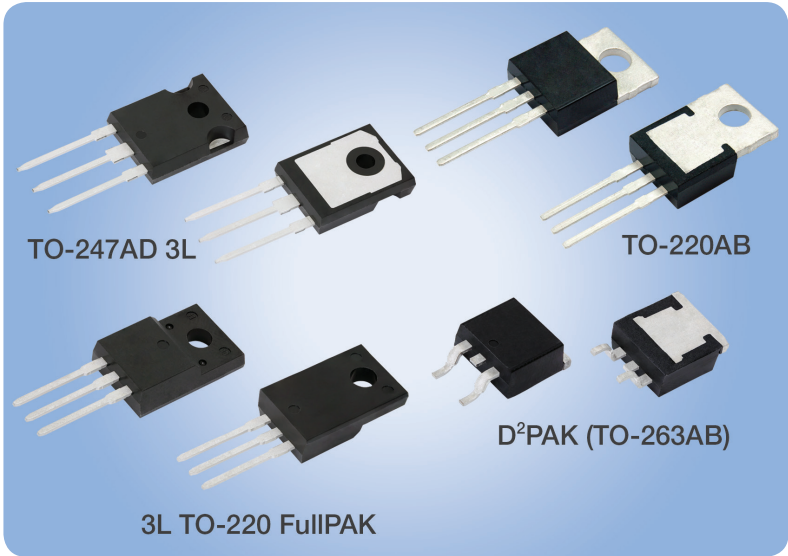


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**DISCRETE THYRISTORS****Phase Control Discrete****AEC-Q101 Qualified Products**

AEC-Q101 qualified phase control thyristors have undergone part average testing (PAT) and statistical yield limit (SYL) analysis to guarantee that their electrical parameters meet the highest quality level for automotive applications. The parts use a dedicated die in the front-end operation and a dedicated part number at the back end, both selected with PAT and SYL statistical criteria, and are suitable for battery charging systems, EV / HEV vehicles, and other automotive applications.

Device ⁽¹⁾	I _{RMS} (A)	Package		V _(BR) Range (V)	Max. V _T at I _T		I _{TSM} (A)	I _{GT} at 25 °C (mA)
		Family	Type		(V)	(A)		
VS-12TTS08HM3	12	Power plastic through-hole	TO-220AB	800	1.20	8.0	110	15
VS-12TTS08SLHM3	12	Power plastic SMD	D ² PAK (TO-263AB)	800	1.20	8.0	110	15
VS-25TTS12HM3	25	Power plastic through-hole	TO-220AB	1200	1.25	16	320	45
VS-25TTS12SLHM3	25	Power plastic SMD	D ² PAK (TO-263AB)	1200	1.25	16	350	45
VS-25TTS16SLHM3	25	Power plastic SMD	D ² PAK (TO-263AB)	1600	1.25	16	350	45
VS-30TPS12LHM3	30	Power plastic through-hole	TO-247AD 3L	1200	1.30	20	300	45
VS-30TPS16LHM3	30	Power plastic through-hole	TO-247AD 3L	1600	1.30	20	300	45
VS-40TTS12HM3	40	Power plastic through-hole	TO-220AB	1200	1.60	25	350	35
VS-40TPS12LHM3	55	Power plastic through-hole	TO-247AD 3L	1200	1.45	35	600	150
VS-40TPS16LHM3	55	Power plastic through-hole	TO-247AD 3L	1600	1.45	35	500	150
VS-50TPS12LHM3	79	Power plastic through-hole	TO-247AD 3L	1200	1.20	50	630	45

Note

⁽¹⁾ Bold text indicates new product



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Standard Products

Phase control thyristors are all halogen-free and RoHS-compliant with lead (Pb)-free terminations. Different current ratings are available (from 10 A_{RMS} to 126 A_{RMS}), with breakdown voltages up to 1600 V.

Surface-mount phase control thyristors in the D²PAK (TO-263AB) package meet MSL level 1, per J-STD-020. Both SMD and through-hole families are suitable for medium power switching applications such as AC switches in motor control or input rectification stages for power inverters, industrial welders, igniters, UPS, and much more. All the assembled parts use chips that can be offered as bare die.

Device ⁽¹⁾	I _{RMS} (A)	Package		V _(BR) Range (V)	Max. V _T at I _T		I _{TSM} (A)	I _{GT} at 25 °C (mA)
		Family	Type		(V)	(A)		
VS-10TTS08S-M3	10	Power plastic SMD	D ² PAK (TO-263AB)	800	1.15	6.5	110	15
VS-10TTS08-M3	10	Power plastic through-hole	3L TO-220AB	800	1.15	6.5	110	15
VS-12TTS08S-M3	12	Power plastic SMD	D ² PAK (TO-263AB)	800	1.20	8	110	15
VS-12TTS08-M3	12	Power plastic through-hole	3L TO-220AB	800	1.20	8	110	15
VS-16TTS08S-M3 VS-16TTS12S-M3	16	Power plastic SMD	D ² PAK (TO-263AB)	800 to 1200	1.40	10	200	60
VS-16TTS08-M3 VS-16TTS12-M3	16	Power plastic through-hole	3L TO-220AB	800 to 1200	1.40	10	200	60
VS-16TTS08FP-M3 VS-16TTS12FP-M3	16	Power plastic through-hole	3L TO-220 FullIPAK ⁽²⁾	800 to 1200	1.40	10	200	60
VS-16TTS16S-M3	16	Power plastic SMD	D ² PAK (TO-263AB)	1600	1.40	10	200	60
VS-25TTS08FP-M3 VS-25TTS12FP-M3	16	Power plastic through-hole	3L TO-220 FullIPAK ⁽²⁾	800 to 1200	1.25	16	350	45
VS-25TTS08S-M3 VS-25TTS12S-M3	25	Power plastic SMD	D ² PAK (TO-263AB)	800 to 1200	1.25	16	350	45
VS-25TTS08-M3 VS-25TTS12-M3	25	Power plastic through-hole	3L TO-220AB	800 to 1200	1.25	16	320	45
VS-25TTS16S-M3	25	Power plastic SMD	D ² PAK (TO-263AB)	1600	1.25	16	350	45
VS-30TPS08-M3 VS-30TPS12-M3	30	Power plastic through-hole	TO-247AC 3L	800 to 1200	1.30	20	300	45
VS-30TPS12L-M3	30	Power plastic through-hole	TO-247AD 3L	1200	1.30	20	300	45
VS-30TPS16-M3	30	Power plastic through-hole	TO-247AC 3L	1600	1.30	20	300	45
VS-30TPS16L-M3	30	Power plastic through-hole	TO-247AD 3L	1600	1.30	20	300	45
VS-40TTS12-M3	40	Power plastic through-hole	3L TO-220AB	1200	1.60	25	350	35
VS-40TPS12L-M3	40	Power plastic through-hole	TO-247AD 3L	1200	1.45	35	600	150
VS-40TPS12AL-M3	40	Power plastic through-hole	TO-247AD 3L	1200	1.45	35	600	40
VS-40TPS16L-M3	40	Power plastic through-hole	TO-247AD 3L	1600	1.45	35	500	150
VS-40TPS08-M3 VS-40TPS12-M3	55	Power plastic through-hole	TO-247AC 3L	800 to 1200	1.45	35	600	150
VS-40TPS08A-M3 VS-40TPS12A-M3	55	Power plastic through-hole	TO-247AC 3L	800 to 1200	1.45	40	600	40
VS-40TPS16-M3	55	Power plastic through-hole	TO-247AC 3L	1600	1.45	35	500	150
VS-70TPS12PBE VS-70TPS16PBE	75	Power plastic through-hole	Super TO-247	1200 to 1600	1.25	70	1100	100
VS-50TPS12L-M3	79	Power plastic through-hole	TO-247AD 3L	1200	1.10	50	630	40
VS-50TPS12AL-M3	79	Power plastic through-hole	TO-247AD 3L	1200	1.10	50	630	25
VS-80TPS16L-M3	126	Power plastic through-hole	TO-247AD 3L	1600	1.16	80	1000	100

Notes

⁽¹⁾ Bold text indicates new product

⁽²⁾ Fully isolated package, UL approved available