

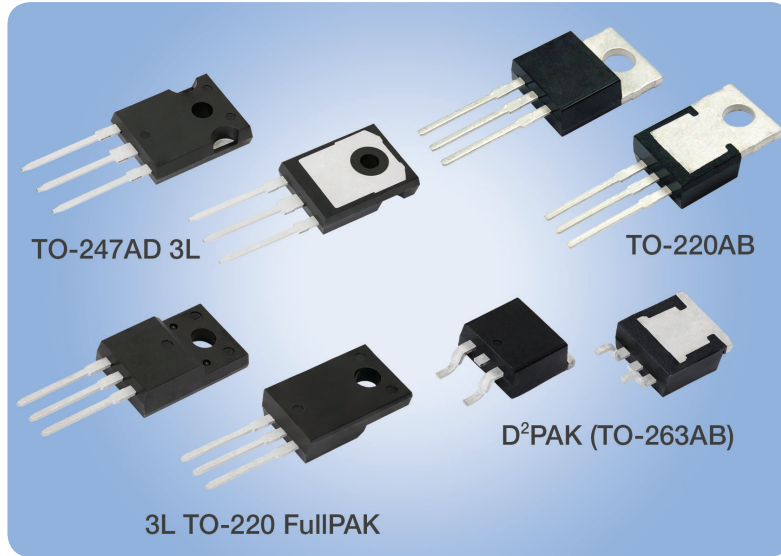


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# DISCRETE THYRISTORS

## Phase Control Discrete

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



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**DISCRETE THYRISTORS**

## Phase Control Discrete

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

**Note**<sup>(1)</sup> Bold text indicates new product



# DISCRETE THYRISTORS

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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<sub>RMS</sub> to 126 A<sub>RMS</sub>), with breakdown voltages up to 1600 V.

Surface-mount phase control thyristors in the D<sup>2</sup>PAK (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 <sup>(1)</sup>	I <sub>RMS</sub> (A)	Package		V <sub>(BR)</sub> Range (V)	Max. V <sub>T</sub> at I <sub>T</sub>		I <sub>TSM</sub> (A)	I <sub>GT</sub> at 25 °C (mA)
		Family	Type		(V)	(A)		
<a href="#">VS-10TTS08S-M3</a>	10	Power plastic SMD	D <sup>2</sup> PAK (TO-263AB)	800	1.15	6.5	110	15
<a href="#">VS-10TTS08-M3</a>	10	Power plastic through-hole	3L TO-220AB	800	1.15	6.5	110	15
<a href="#">VS-12TTS08S-M3</a>	12	Power plastic SMD	D <sup>2</sup> PAK (TO-263AB)	800	1.20	8	110	15
<a href="#">VS-12TTS08-M3</a>	12	Power plastic through-hole	3L TO-220AB	800	1.20	8	110	15
<a href="#">VS-16TTS08S-M3</a> <a href="#">VS-16TTS12S-M3</a>	16	Power plastic SMD	D <sup>2</sup> PAK (TO-263AB)	800 to 1200	1.40	10	200	60
<a href="#">VS-16TTS08-M3</a> <a href="#">VS-16TTS12-M3</a>	16	Power plastic through-hole	3L TO-220AB	800 to 1200	1.40	10	200	60
<a href="#">VS-16TTS08FP-M3</a> <a href="#">VS-16TTS12FP-M3</a>	16	Power plastic through-hole	3L TO-220 FullPAK <sup>(2)</sup>	800 to 1200	1.40	10	200	60
<a href="#">VS-16TTS16S-M3</a>	16	Power plastic SMD	D <sup>2</sup> PAK (TO-263AB)	1600	1.40	10	200	60
<a href="#">VS-25TTS08FP-M3</a> <a href="#">VS-25TTS12FP-M3</a>	16	Power plastic through-hole	3L TO-220 FullPAK <sup>(2)</sup>	800 to 1200	1.25	16	350	45
<a href="#">VS-25TTS08S-M3</a> <a href="#">VS-25TTS12S-M3</a>	25	Power plastic SMD	D <sup>2</sup> PAK (TO-263AB)	800 to 1200	1.25	16	350	45
<a href="#">VS-25TTS08-M3</a> <a href="#">VS-25TTS12-M3</a>	25	Power plastic through-hole	3L TO-220AB	800 to 1200	1.25	16	320	45
<a href="#">VS-25TTS16S-M3</a>	25	Power plastic SMD	D <sup>2</sup> PAK (TO-263AB)	1600	1.25	16	350	45
<a href="#">VS-30TPS08-M3</a> <a href="#">VS-30TPS12-M3</a>	30	Power plastic through-hole	TO-247AC 3L	800 to 1200	1.30	20	300	45
<a href="#">VS-30TPS12L-M3</a>	30	Power plastic through-hole	TO-247AD 3L	1200	1.30	20	300	45
<a href="#">VS-30TPS16-M3</a>	30	Power plastic through-hole	TO-247AC 3L	1600	1.30	20	300	45
<a href="#">VS-30TPS16L-M3</a>	30	Power plastic through-hole	TO-247AD 3L	1600	1.30	20	300	45
<a href="#">VS-40TTS12-M3</a>	40	Power plastic through-hole	3L TO-220AB	1200	1.60	25	350	35
<a href="#">VS-40TPS12L-M3</a>	40	Power plastic through-hole	TO-247AD 3L	1200	1.45	35	600	150
<a href="#">VS-40TPS12AL-M3</a>	40	Power plastic through-hole	TO-247AD 3L	1200	1.45	35	600	40
<a href="#">VS-40TPS16L-M3</a>	40	Power plastic through-hole	TO-247AD 3L	1600	1.45	35	500	150
<a href="#">VS-40TPS08-M3</a> <a href="#">VS-40TPS12-M3</a>	55	Power plastic through-hole	TO-247AC 3L	800 to 1200	1.45	35	600	150
<a href="#">VS-40TPS08A-M3</a> <a href="#">VS-40TPS12A-M3</a>	55	Power plastic through-hole	TO-247AC 3L	800 to 1200	1.45	40	600	40
<a href="#">VS-40TPS16-M3</a>	55	Power plastic through-hole	TO-247AC 3L	1600	1.45	35	500	150
<a href="#">VS-70TPS12PBE</a> <a href="#">VS-70TPS16PBE</a>	75	Power plastic through-hole	Super TO-247	1200 to 1600	1.25	70	1100	100
<a href="#">VS-50TPS12L-M3</a>	<b>79</b>	<b>Power plastic through-hole</b>	<b>TO-247AD 3L</b>	<b>1200</b>	<b>1.10</b>	<b>50</b>	<b>630</b>	<b>45</b>
<a href="#">VS-50TPS12AL-M3</a>	<b>79</b>	<b>Power plastic through-hole</b>	<b>TO-247AD 3L</b>	<b>1200</b>	<b>1.10</b>	<b>50</b>	<b>630</b>	<b>35</b>
<a href="#">VS-80TPS16L-M3</a>	<b>126</b>	<b>Power plastic through-hole</b>	<b>TO-247AD 3L</b>	<b>1600</b>	<b>1.16</b>	<b>80</b>	<b>1000</b>	<b>100</b>

**Notes**

<sup>(1)</sup> Bold text indicates new product

<sup>(2)</sup> Fully isolated package, UL approved available