



HIGH-PERFORMANCE GEN 5.0 SCHOTTKY DIODES

New 100-V Family Targets High-Temperature Applications



5th Generation of High-Performance 100-V Schottky Diodes Offers T_j Max of +175 °C For High-Temperature Applications

FEATURES

- Submicron trench technology
- Very low typical forward voltage drop from 0.55 V at 8 A to 0.61 V at 30 A
- Extremely low typical reverse leakage from 1 mA to 5.5 mA at 125 °C
- Increased ruggedness for reverse avalanche capability, with 100 % screening for all devices

BENEFITS

- Very tight parameter distribution
- Negligible switching losses
- Small RoHS-compliant packages for improved cost-to-power ratios
- Reverse biased safe operating area (RBSOA) available for tight and cost-effective designs
- 30 % increased height and stability of breakdown voltage (> 115 V typical) accommodates voltage spikes and optimizes power density

Datasheets available on our web site at www.vishay.com
http://www.vishay.com/ref/HPS_Gen5



High Performance Schottky Generation 5.0 series

High Power Products

APPLICATIONS

- AC/DC and secondary rectification; flyback, buck, and boost converters; half-bridge, reverse battery protection, freewheeling, class-D amplifiers, and dc-to-dc module applications
- Typical end products include high power density SMPS; adaptors for desktop PCs; servers; automotive drives and controls; telecom networks; consumer electronics like PDPs, LCDs, and high-efficiency audio systems; and mobile electronics such as notebook computers, cell phones, and portable media players

Device	I _{F(AV)}	@ TC (°C)	V _{FM} @ 125 °C (Typ) (V)	Reverse Leakage		EAS (mJ)	T _J Max (°C)	Package
				@ 25 °C (μA)	Typ @ 125 °C (mA)			
8TT100	8 A	163	0.55 at 8 A	65	1	67	175	TO-220AC
15TT100	15 A	144	0.63 at 15 A	120	2.3	36	175	TO-220AC
MBR10T100	10 A	159	0.62 at 10 A	100	1.2	54	175	TO-220AC
16CTT100	2 x 8 A	163	0.55 at 8 A	65	1	67	175	TO-220AB
MBR20T100CT	2 x 10 A	159	0.62 at 10 A	100	1.2	54	175	TO-220AB
20TT100	20 A	160	0.63 at 20 A	150	2	67.5	175	TO-220AC
30CTT100	2 x 15 A	144	0.63 at 15 A	120	2.3	36	175	TO-220AB
43CTT100	2 x 20 A	160	0.63 at 20 A	150	2.5	67.5	175	TO-220AB
30PT100	30 A	156	0.61 at 30 A	200	5.5	135	175	TO-247AC
30CPT100	2 X 15 A	158	0.63 at 15 A	120	2.3	36	175	TO-247AB
63CPT100	2 x 30 A	156	0.61 at 30 A	200	5.5	135	175	TO-247AB

Packages



TO-220AC



TO-247ACMOD

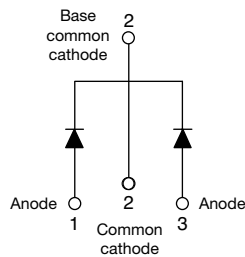
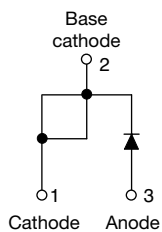


TO-247AB



TO-220AB

Circuit Configurations



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