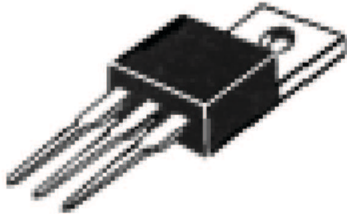


Schottky Barrier Rectifiers



Using the schottky barrier principle with a molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes.

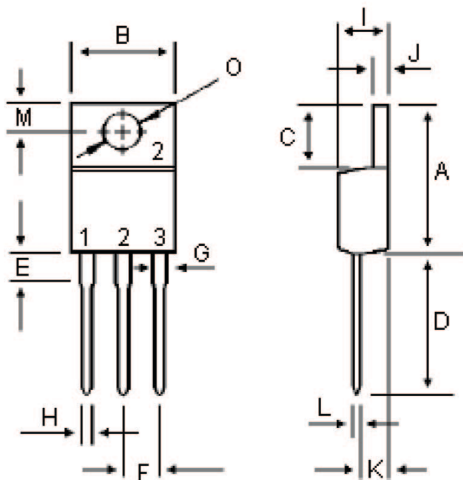
Schottky Barrier Power Rectifiers



**16 Amperes
100 Volts
TO-220AB**

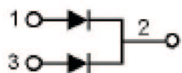
Features:

- Low forward voltage.
- Low switching noise.
- High current capacity.
- Guarantee reverse avalanche.
- Guard-ring for stress protection.
- Low power loss and high efficiency.
- 150°C operating junction temperature.
- Low stored charge majority carrier conduction.
- Plastic material used carries Underwriters Laboratory Flammability Classification 94V-O.



DIM	MILLIMETERS	
	MIN	MAX
A	14.68	15.32
B	9.78	10.42
C	5.02	6.52
D	13.06	14.62
E	3.57	4.07
F	2.42	2.66
G	1.12	1.36
H	0.72	0.96
I	4.22	4.98
J	1.14	1.38
K	2.20	2.98
L	0.33	0.55
M	2.48	2.98
O	3.70	3.90

Dimensions : Millimetres



Common Cathode

Part Number Table

Description	Part Number
Schottky Barrier Rectifiers	MBR16100CT

Maximum Ratings

Characteristic	Symbol	MBR16100CT	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	
Average Rectifier Forward Current (per diode) Total Device (Rated V_R), $T_C = 125^\circ\text{C}$	$I_{F(AV)}$	8.0 16	
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	I_{FM}	16	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	I_{FSM}	150	
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +150	$^\circ\text{C}$

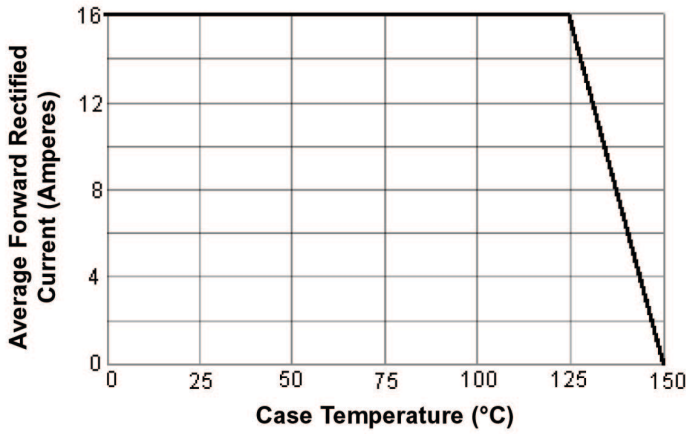
Electrical Characteristics

Characteristic	Symbol	MBR16100CT	Units
Maximum Instantaneous Forward Voltage (per diode) ($I_F = 8.0$ Amperes $T_C = 25^\circ\text{C}$) ($I_F = 8.0$ Amperes $T_C = 100^\circ\text{C}$)	V_F	0.85 0.73	V
Typical Thermal Resistance Junction to Case	$R_{\theta j-c}$	3.8	$^\circ\text{C/W}$
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ\text{C}$) (Rated DC Voltage, $T_C = 125^\circ\text{C}$)	I_R	0.2 20	mA

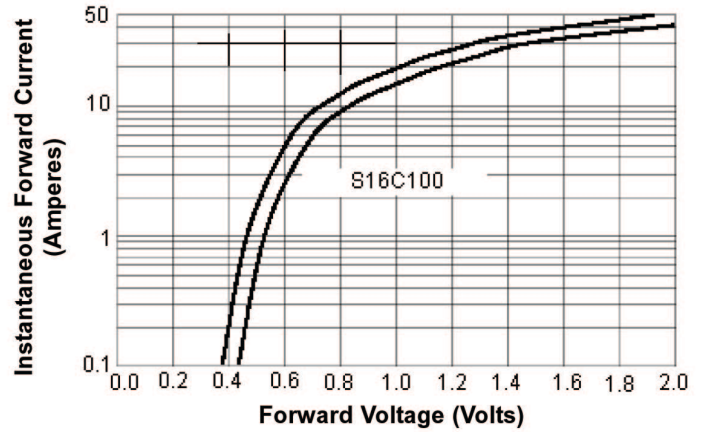
Schottky Barrier Rectifiers



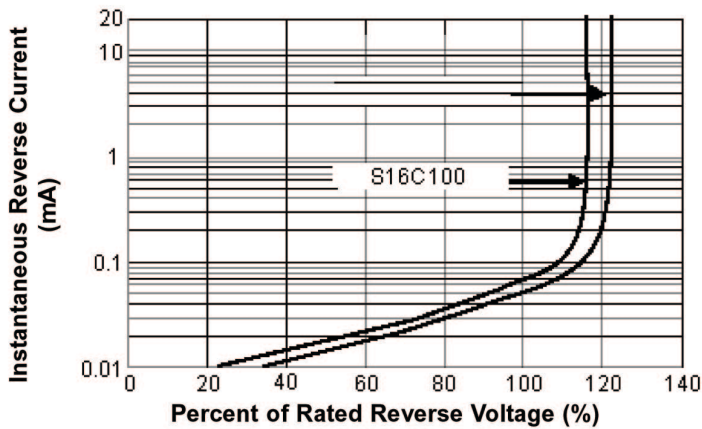
Forward Current Derating Curve



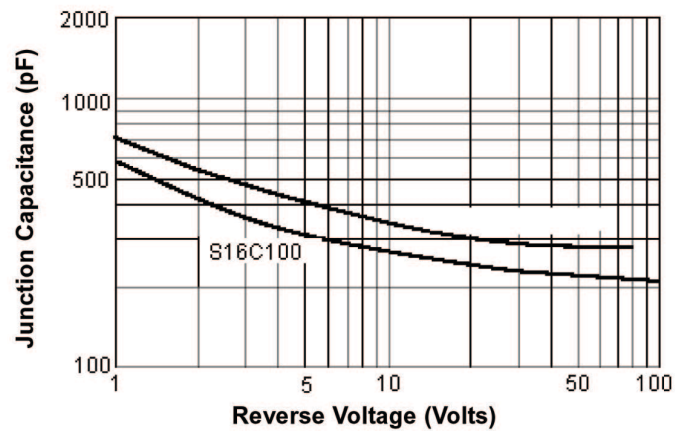
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



Peak Forward Surge Current

