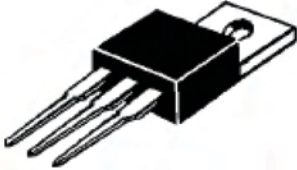


Schottky Barrier Rectifiers



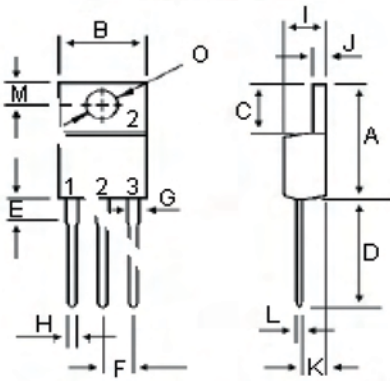
Using the schottky barrier principle with a refractory metal capable of high temperature operation metal. The proprietary barrier technology allows for reliable operation up to 175°C junction temperature. Typical application are in switching mode power supplies such as adaptors, DC/DC converters, free- wheeling and polarity protection diodes.

Features:



- Low forward voltage.
- Low switching noise.
- High current capacity.
- Guarantee reverse avalanche.
- Guard-ring for stress protection.
- Low power loss and high efficiency.
- 175°C operating junction temperature.
- Low stored charge majority carrier conduction.
- Plastic material used carries Underwriters Laboratory Flammability classification 94V-O.

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



Dimensions : Millimetres

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



Common Cathode

Maximum Ratings

Characteristic	Symbol	MBR20100CT	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), $T_C = 125^\circ C$	$I_F (AV)$	10 20	
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	I_{FM}	20	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 +175	$^\circ C$

Thermal Resistances

Typical Thermal Resistance junction to case	$R_{\theta jc}$	3.4	$^\circ C/W$
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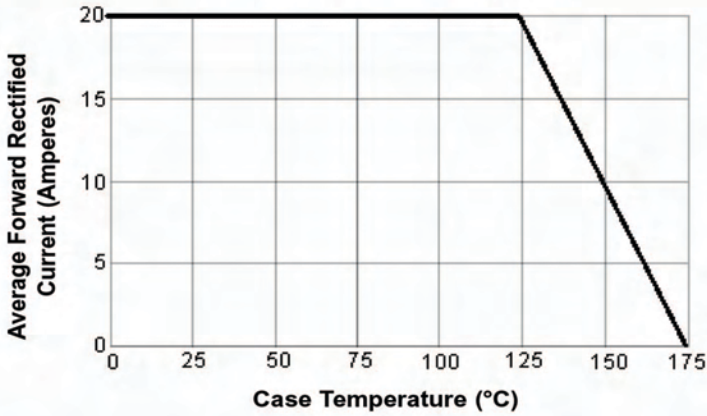
Electrical Characteristics

Characteristic	Symbol	MBR20100CT	Units
Maximum Instantaneous Forward Voltage (per diode) ($I_F = 10$ Amperes $T_C = 25^\circ C$) ($I_F = 10$ Amperes $T_C = 125^\circ C$)	V_F	0.85 0.76	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ C$) (Rated DC Voltage, $T_C = 125^\circ C$)	I_R	0.01 10	mA

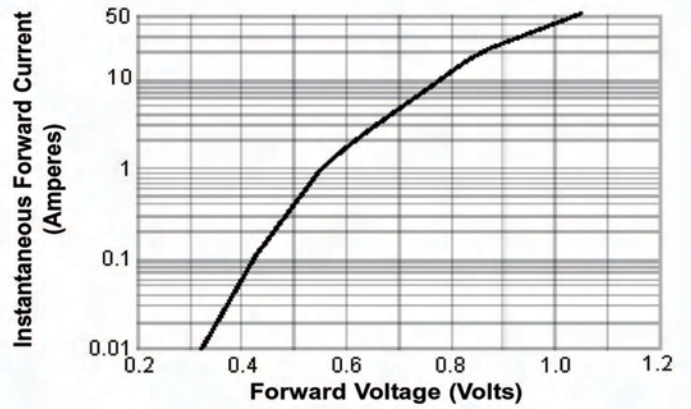
Schottky Barrier Rectifiers



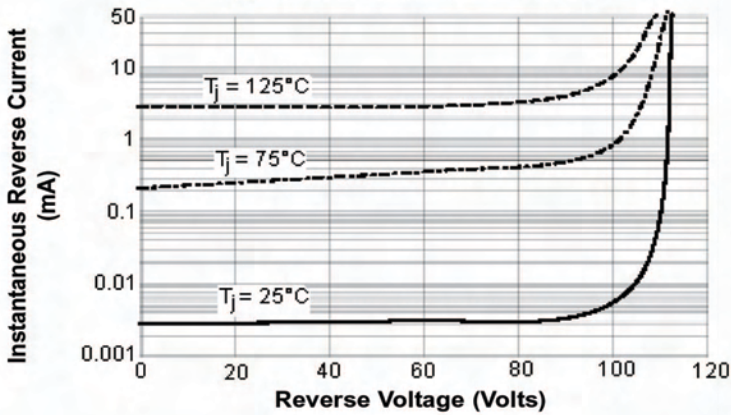
Forward Current Derating Curve



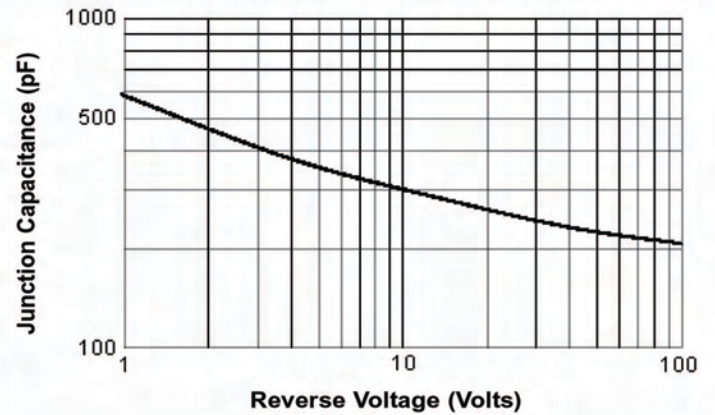
Typical Forward Characteristics



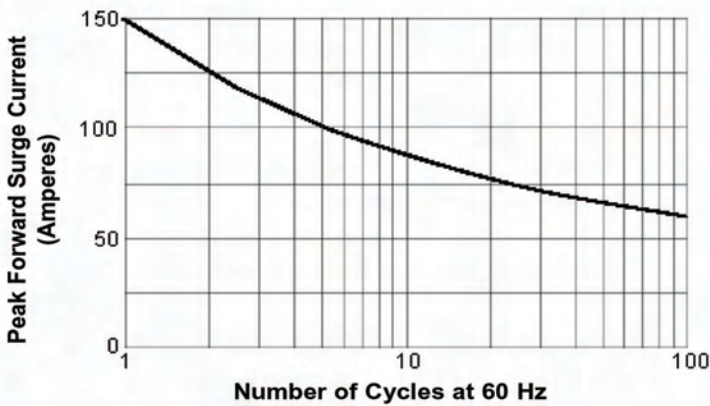
Typical Reverse Characteristics



Typical Junction Capacitance



Peak Forward Surge Current



Schottky Barrier Rectifiers



Part Number Table

Description	Part Number
Schottky Barrier Rectifiers	MBR20100CT



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