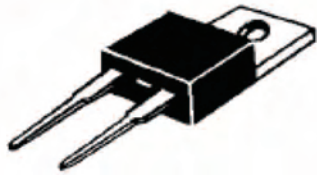


Schottky Barrier Rectifiers



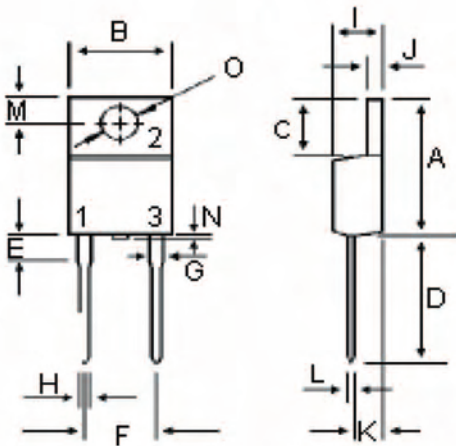
Using the schottky barrier principle with a molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes.

Features:



- Low forward voltage.
- Low switching noise.
- High current capacity.
- Guarantee reverse avalanche.
- Guard-ring for stress protection.
- Low power loss and high efficiency.
- 125°C operating junction temperature.
- Low stored charge majority carrier conduction.
- Plastic material used carries Underwriters Laboratory Flammability classification 94V-O.

15 Amperes
40-45 Volts
TO-220AC



DIM	MILLIMETERS	
	MIN	MAX
A	14.68	15.32
B	9.78	10.42
C	6.02	6.52
D	13.06	14.62
E	3.57	4.07
F	4.84	5.32
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
N	---	1.00
O	3.70	3.90

Dimensions : Millimetres

Part Number Table

Description	Part Number
Schottky Barrier Rectifiers	MBR1540
Schottky Barrier Rectifiers	MBR1545

Schottky Barrier Rectifiers



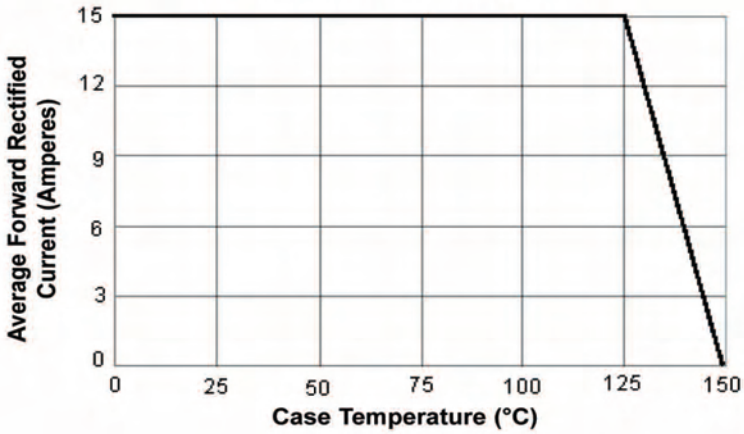
Maximum Ratings

Characteristic	Symbol	MBR1540	MBR1545	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	45	V
RMS Reverse Voltage	$V_R (RMS)$	28	32	
Average Rectifier Forward Current	$I_F (AV)$	15		A
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	I_{FM}			
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	I_{FSM}	250		
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150		°C

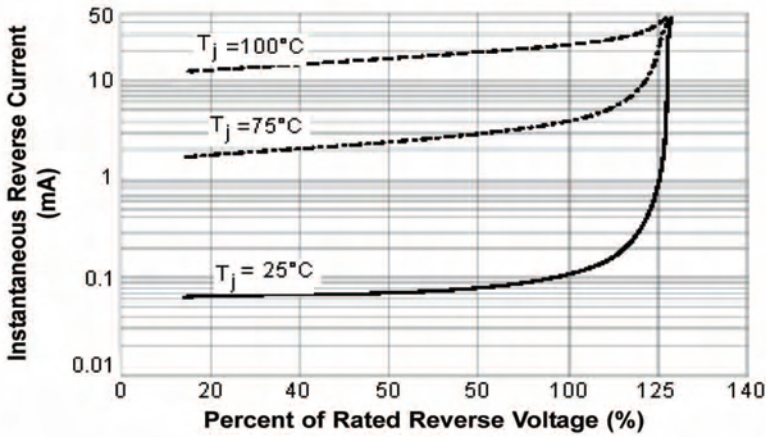
Electrical Characteristics

Characteristic	Symbol	MBR1540	MBR1545	Units
Maximum Instantaneous Forward Voltage (per diode) ($I_F = 15$ Amperes $T_C = 25^\circ C$) ($I_F = 15$ Amperes $T_C = 125^\circ C$)	V_F	0.55 0.48		V
Typical Thermal Resistance Junction to Case	$R_{\theta j-c}$	3.0		°C/W
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ C$) (Rated DC Voltage, $T_C = 125^\circ C$)	I_R	0.5 30		mA

Forward Current Derating Curve



Typical Reverse Characteristics



Peak Forward Surge Current

