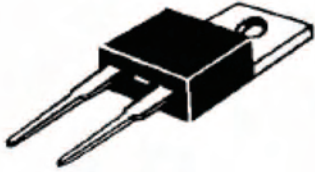


Schottky Barrier Rectifiers



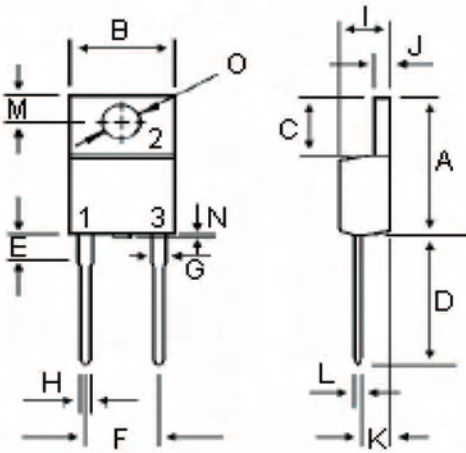
Using the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes.



Features:

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

10 Amperes
40-60 Volts
TO-220A



Dimensions : Millimetres

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

Schottky Barrier Rectifiers



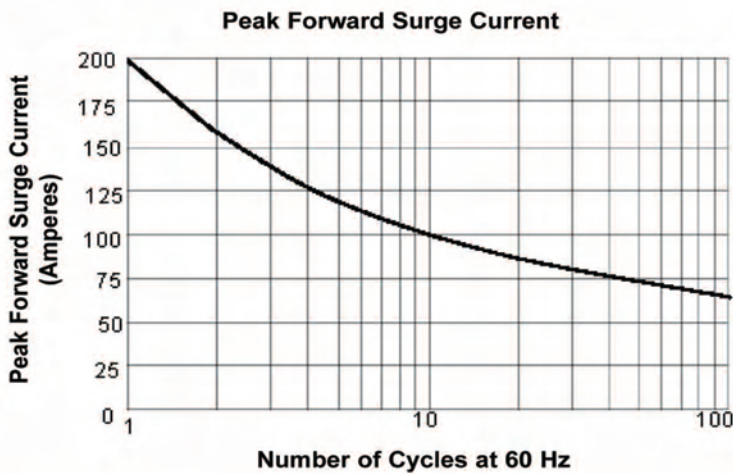
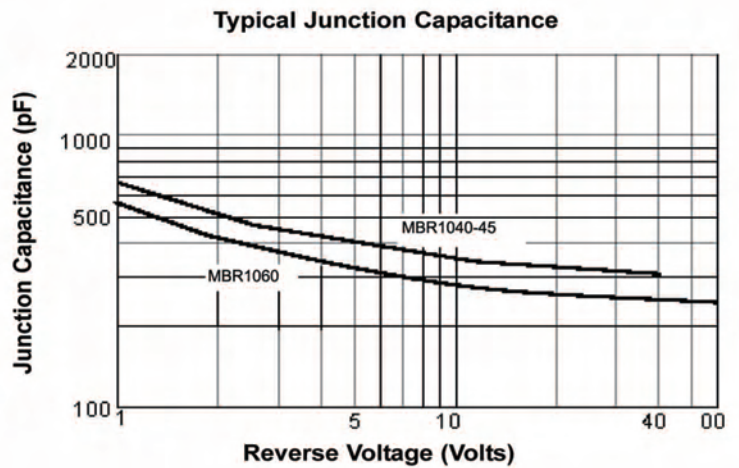
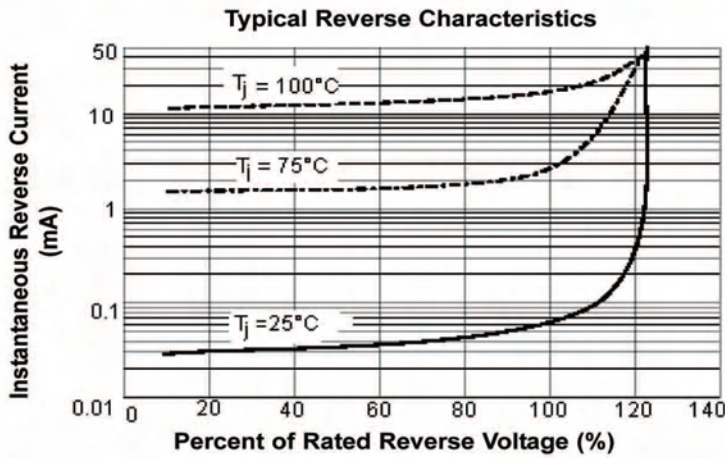
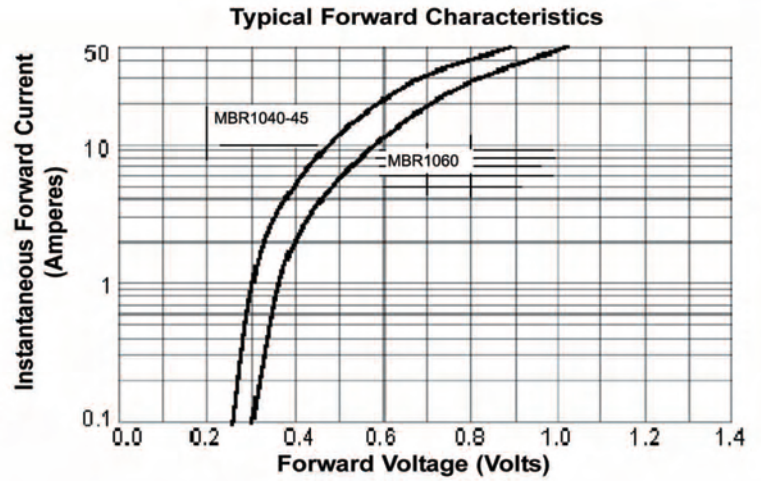
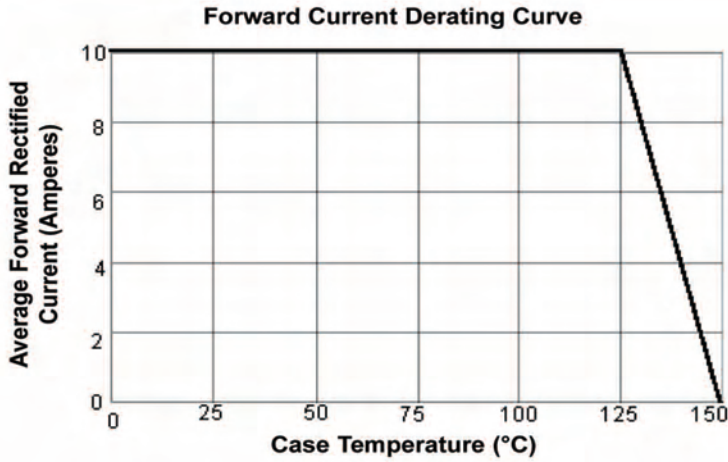
Maximum Ratings

Characteristic	Symbol	MBR1040	MBR1045	MBR1060	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	45	60	V
RMS Reverse Voltage	$V_R (RMS)$	28	32	42	
Average Rectifier Forward Current	$I_F (AV)$	10			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}	200			
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150			°C

Electrical Characteristics

Characteristic	Symbol	MBR1040	MBR1045	MBR1060	Units
Maximum Instantaneous Forward Voltage ($I_F = 10$ Amperes $T_C = 25^\circ C$) ($I_F = 10$ Amperes $T_C = 125^\circ C$)	V_F	0.55 0.48		0.70 0.60	V
Typical Thermal Resistance Junction to Case	$R_{\theta j-c}$	3.4			°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 20			mA

Schottky Barrier Rectifiers



Schottky Barrier Rectifiers



Part Number Table

Description	Part Number
Schottky Barrier Rectifiers	MBR1040
Schottky Barrier Rectifiers	MBR1045
Schottky Barrier Rectifiers	MBR1060



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