

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.

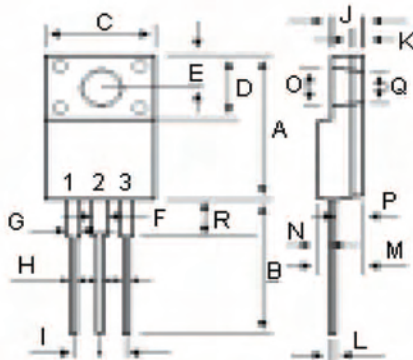
Switch mode Full Plastic Dual Schottky Barrier Power Rectifiers



Features:

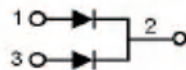
- Low forward voltage.
- Low switching noise.
- High current capacity.
- Guarantee reverse avalanche.
- Guard-ring for stress protection.
- Low power loss and high efficiency.
- 175°C operating junction temperature.
- Low stored charge majority carrier conduction.
- Plastic material used carries Underwriters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

**30 Amperes
45 Volts
ITO-220AB**



Dimensions : Millimetres

DIM	MILLIMETERS	
	MIN	MAX
A	15.05	15.15
B	13.35	13.45
C	10.00	10.10
D	6.55	6.65
E	2.65	2.75
F	1.55	1.65
G	1.15	1.25
H	0.55	0.65
I	2.50	2.60
J	3.00	3.20
K	1.10	1.20
L	0.55	0.65
M	4.40	4.60
N	1.15	1.25
O	3.35	3.45
P	2.65	2.75
Q	3.15	3.25
R	3.60	3.80



Common Cathode

Part Number Table

Description	Part Number
Schottky Barrier Rectifiers	MBRF3045CT

Maximum Ratings

Characteristic	Symbol	MBRF3045	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	45	V
RMS Reverse Voltage	V_R (RMS)	32	
Average Rectifier Forward Current (per diode) Total Device (Rated V_R), $T_C = 125^\circ\text{C}$	I_F (AV)	15 30	
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	I_{FM}	30	A
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	$^\circ\text{C}$

Electrical Characteristics

Characteristic	Symbol	MBRF3045	Units
Maximum Instantaneous Forward Voltage (per diode) ($I_F = 15$ Amperes $T_C = 25^\circ\text{C}$) ($I_F = 15$ Amperes $T_C = 125^\circ\text{C}$)	V_F	0.55 0.48	V
Typical Thermal Resistance Junction to Case	$R_{\theta j-c}$	3.0	$^\circ\text{C}/\text{W}$
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ\text{C}$) (Rated DC Voltage, $T_C = 125^\circ\text{C}$)	I_R	0.5 30	mA

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