MOSPEC

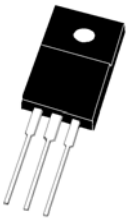
MBRF30200CJ

Switchmode
Full Plastic Dual Schottky Barrier Power 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℃ junction temperature. Typical application are in switching Mode Power Supplies such as adaptors, DC/DC converters, free-wheeling and polarity protection diodes.

SCHOTTKY BARRIER RECTIFIERS

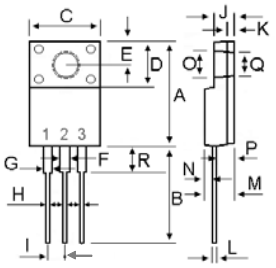
30 AMPERES
200 VOLTS



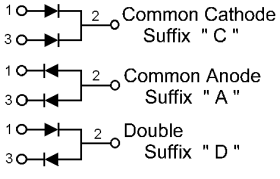
ITO-220AB

Features.
- ＊Low Forward Voltage.
- ＊Low Switching noise.
- ＊High Current Capacity
- ＊Guarantee Reverse Avalanche.
- ＊Guard-Ring for Stress Protection.
- ＊Low Power Loss & High efficiency.
- ＊175℃ Operating Junction Temperature
- ＊Low Stored Charge Majority Carrier Conduction.
- ＊Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

＊*In compliance with EU RoHs 2002/95/EC directives*



DIM	MILLIMETERS	
	MIN	MAX
A	14.90	15.30
B	13.20	13.50
C	9.9	10.30
D	6.50	6.70
E	2.50	2.80
F	1.10	1.40
G	1.10	1.40
H	0.50	0.80
I	2.30	2.70
J	3.00	3.30
K	1.10	1.30
L	0.50	0.80
M	4.30	4.70
N	1.10	1.30
O	3.20	3.50
P	2.50	2.80
Q	3.20	3.50
R	3.40	3.80



MAXIMUM RATINGS

Characteristic	Symbol	MBRF30200CJ	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	V
Average Rectifier Forward Current (per diode) Total Device (Rated V_R),T_C=125℃	$I_{F(AV)}$	15 30	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	200	A
Operating and Storage Junction Temperature Range	T_J , T_{STG}	-65 to +175	℃

THERMAL RESISTANCES

Typical Thermal Resistance junction to case	$R_{\theta jc}$	6.8	℃/w

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	MBRF30200CJ	Unit
Maximum Instantaneous Forward Voltage (per diode) (I_F =15 Amp T_C = 25℃) (I_F =15 Amp T_C = 125℃)	V_F	0.90 0.80	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 125℃)	I_R	0.5 10	uA mA

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FIG-1 FORWARD CURRENT DERATING CURVE

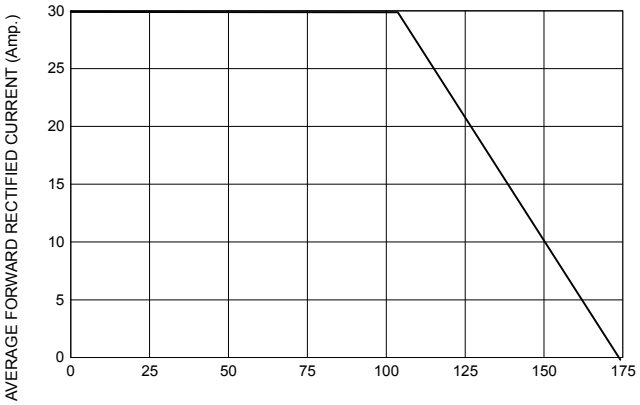


FIG-2 TYPICAL FORWARD CHARACTERISITICS

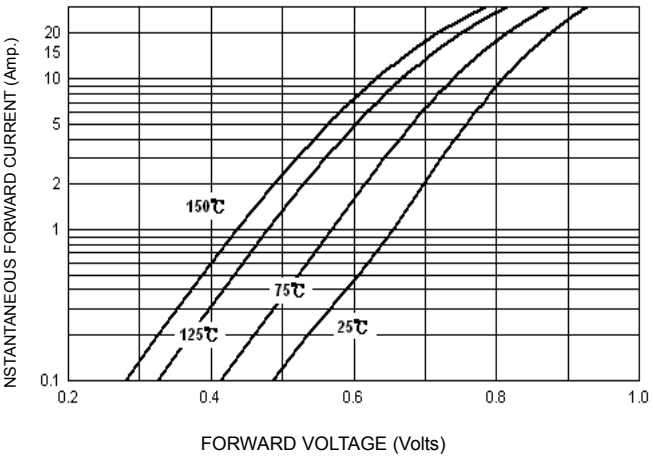


FIG-3 TYPICAL REVERSE CHARACTERISTICS

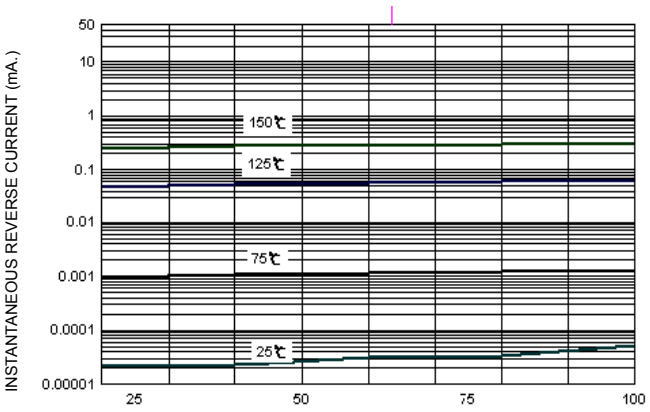


FIG-4 TYPICAL JUNCTION CAPACITANCE

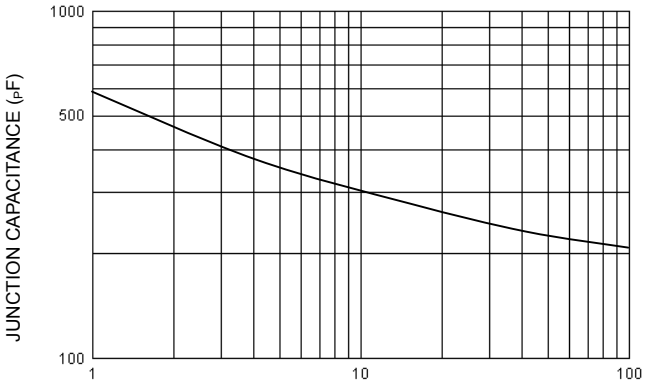
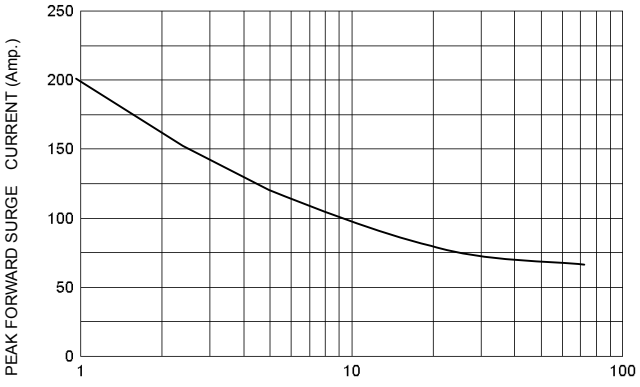


FIG-5 PEAK FORWARD SURGE CURRENT



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