

Schottky Barrier Rectifiers

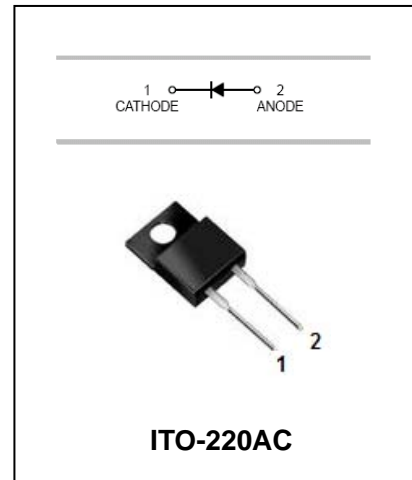
MBRF10150-MBRF10200

FEATURES

- High Surge Capacity.
- For Use in Low Voltage,High Frequency Inverters,Free Wheeling,and Polarity Protection Applications.
- Metal Silicon Junction,Majority Carrier Conduction..
- High Current Capacity,Lowforward Voltage Drop.
- Guard Ring for Over Voltage Protection.



Lead-free



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	MBRF10150	MBRF10200	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	150	200	V
V_{RMS}	RMS Voltage	105	140	V
V_{DC}	DC Blocking Voltage	150	200	V
$I_{F(AV)}$	Average Forward Rectified Current	10		A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half-sine-wave superimposed on Rsted Load	150		A
$R_{\theta JC}$	Maximum Thermal Resistance(Note1)	4.0		°C/w
T_j	Operating Junction Temperature Range	-55 to +150		°C
T_{stg}	Storage Temperature Range	-55 to +175		°C

Note:1.Thermal resistance from junction to case.

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ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified.

Parameter	Symbol	Test conditions	MBRF10150	MBRF10200	UNIT
			MAX		
Reverse Current	I_R	$V_R=V_{RRM}, T_A=25^\circ\text{C}$ $V_R=V_{RRM}, T_A=125^\circ\text{C}$	0.1	50	mA
Forward Voltage	V_F (Note1)	$I_F=10\text{A}, T_A=25^\circ\text{C}$ $I_F=10\text{A}, T_A=125^\circ\text{C}$	0.90 0.62	0.95 0.65	V

Note:1.Pulse test:300 μs width,1% duty cycle.

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified.

FIG.1 – PEAK FORWARD SURGE CURRENT

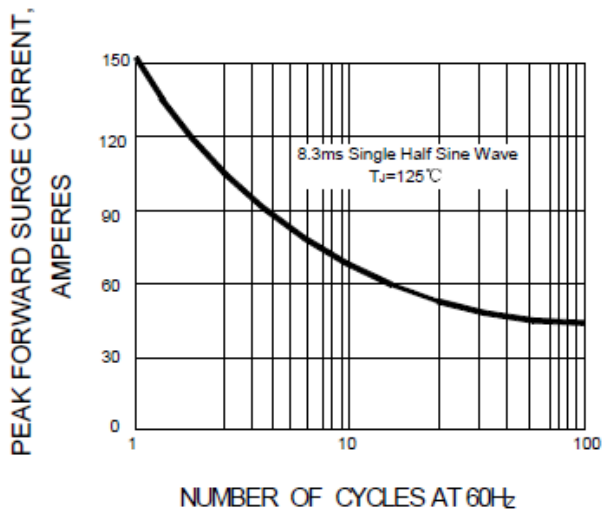


FIG.2 – FORWARD DERATING CURVE

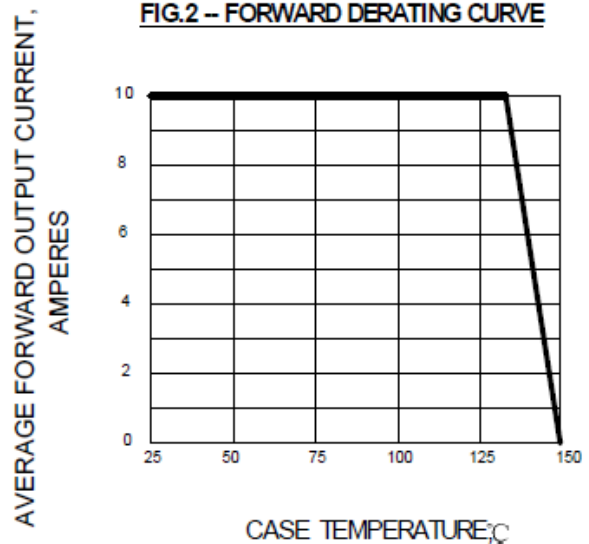


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

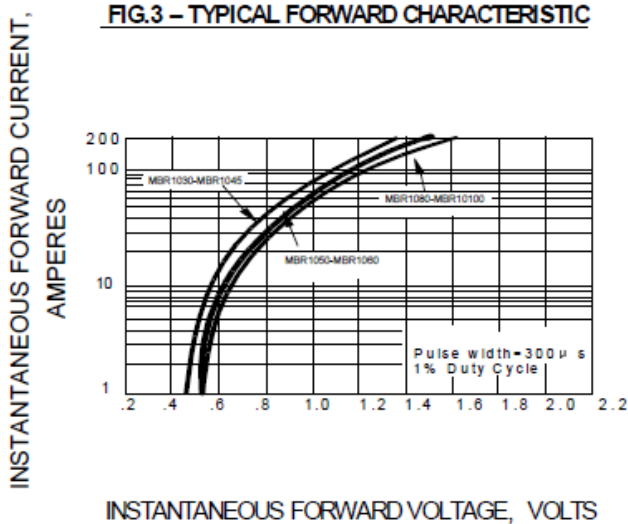
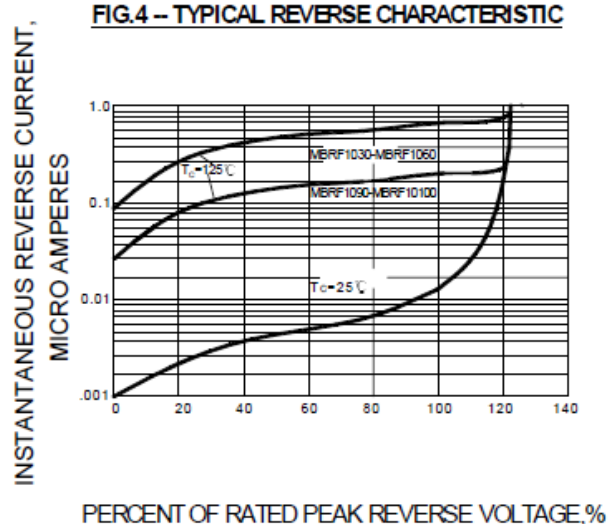


FIG.4 – TYPICAL REVERSE CHARACTERISTIC



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PACKAGE OUTLINE

Plastic surface mounted package

ITO-220AC

