

Schottky Barrier Rectifiers

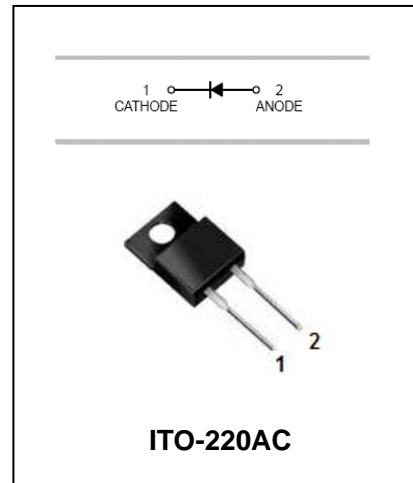
MBRF1030-MBRF10200

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

Sym bol	Parameter	MBRF 1030	MBRF 1035	MBRF 1040	MBRF 1045	MBRF 1050	MBRF 1060	MBRF 1080	MBRF 10100	MBRF 10150	MBRF 10200	Un it
V _{RRM}	Repetitive Peak Reverse Voltage	30	35	40	45	50	60	80	100	150	200	V
V _{RMS}	RMS Voltage	21	25	28	32	35	42	56	70	105	140	V
V _{DC}	DC Blocking Voltage	30	35	40	45	50	60	80	100	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 _{θJC}	Maximum Thermal Resistance(Note1)	4.0										°C /w
T _j	Operating Junction Temperature Range	-55 to +150										°C
T _{stg}	StorageTemperature 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	MBRF1030- MBRF1045	MBRF1050- MBRF1060	MBRF1080- MBRF10100	MBRF 10150	MBRF 10200	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 15	0.1 25	0.1 50			mA
Forward Voltage	V_F (Note1)	$I_F=10\text{A}, T_A=25^\circ\text{C}$ $I_F=10\text{A}, T_A=125^\circ\text{C}$	0.70 0.57	0.80 0.70	0.85 0.65	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- FORWARD CURRENT DERATING CURVE

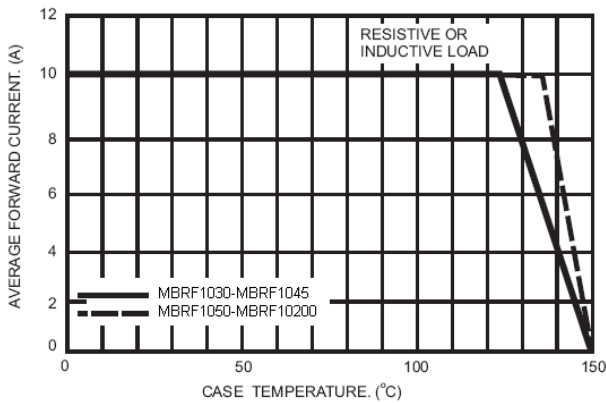


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

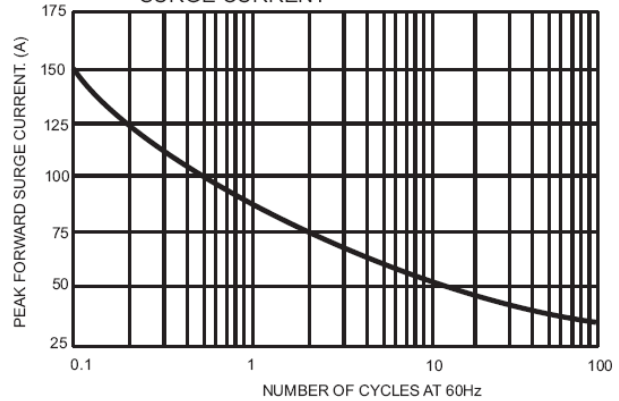


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

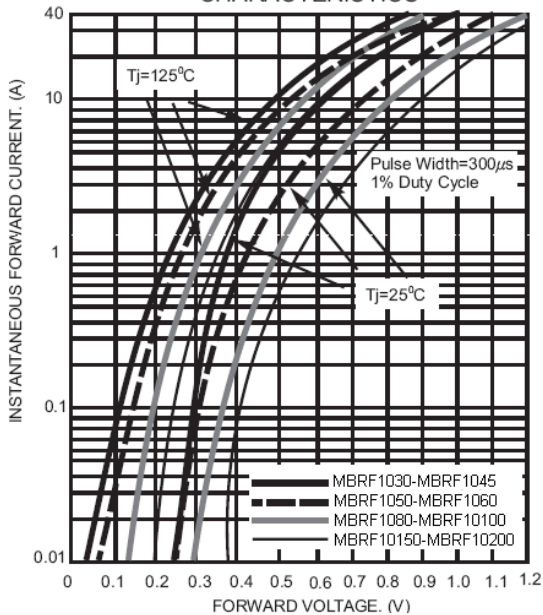
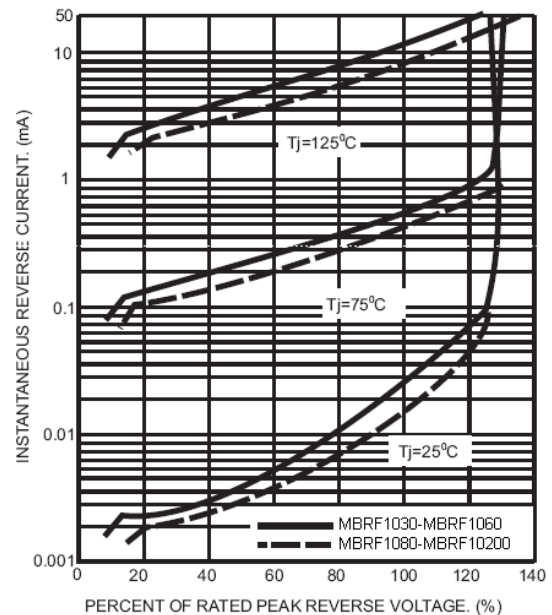


FIG.4- TYPICAL REVERSE CHARACTERISTICS





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PACKAGE OUTLINE

Plastic surface mounted package

ITO-220AC

