

### SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 30 - 100 V  
CURRENT: 8.0 A

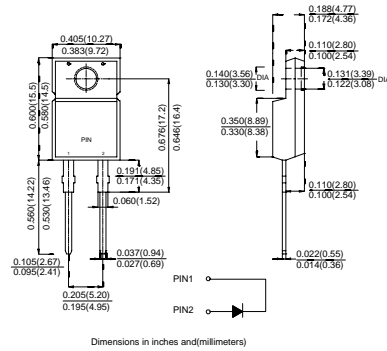
#### FEATURES

- ◇ 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, low forward voltage drop.
- ◇ Guard ring for over voltage protection.

#### MECHANICAL DATA

- ◇ Case: JEDEC ITO-220AC, molded plastic body
- ◇ Terminals: Leads, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Position: Any
- ◇ Weight: 0.064 ounces, 1.81 gram

#### ITO-220AC



inch(mm)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

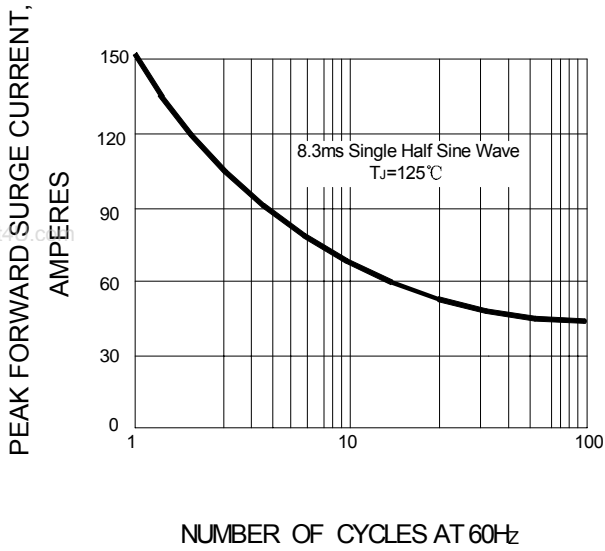
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

		MBRF 830	MBRF 835	MBRF 840	MBRF 845	MBRF 850	MBRF 860	MBRF 880	MBRF 8100	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	30	35	40	45	50	60	80	100	V
Maximum RMS Voltage	$V_{RMS}$	21	25	28	32	35	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	30	35	40	45	50	60	80	100	V
Maximum average forward total device rectified current @ $T_c = 125^\circ\text{C}$	$I_{F(AV)}$	8.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150								A
Maximum forward voltage ( $I_F=8.0\text{A}, T_c=125^\circ\text{C}$ ) ( $I_F=8.0\text{A}, T_c=25^\circ\text{C}$ ) (Note 1) ( $I_F=16\text{A}, T_c=25^\circ\text{C}$ )	$V_F$		0.57			0.70		-	0.85	V
Maximum reverse current @ $T_c=25^\circ\text{C}$ at rated DC blocking voltage @ $T_c=125^\circ\text{C}$	$I_R$			0.1				0.5		m A
				15				50		
Maximum thermal resistance (Note 2)	$R_{\theta JC}$	3.0								K/W
Operating junction temperature range	$T_J$	- 55 ---- + 150								°C
Storage temperature range	$T_{STG}$	- 55 ---- + 150								°C

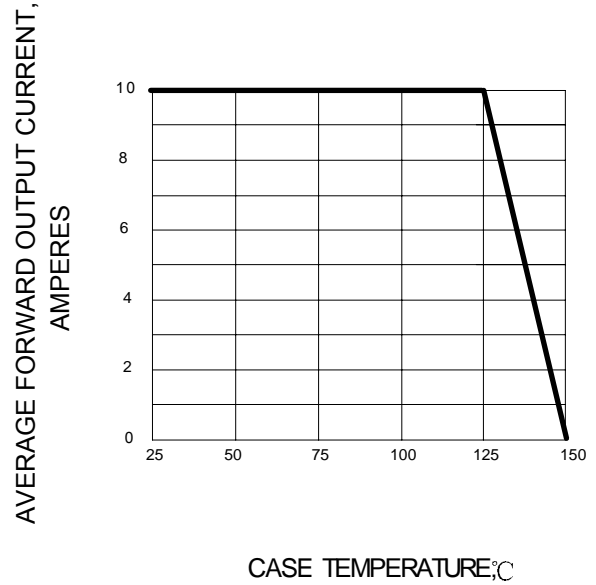
NOTE: 1. Pulse test: 300µs pulse width, 1% duty cycle.  
2. Thermal resistance from junction to case.

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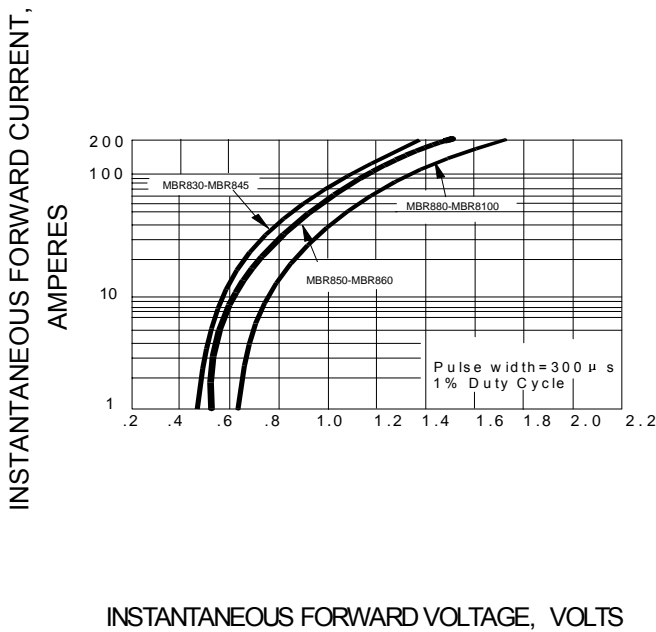
**FIG.1 – PEAK FORWARD SURGE CURRENT**



**FIG.2 – FORWARD DERATING CURVE**



**FIG.3 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**

