

**SCHOTTKY BARRIER RECTIFIERS**

**VOLTAGE RANGE: 30 - 100 V**

**CURRENT: 30 A**

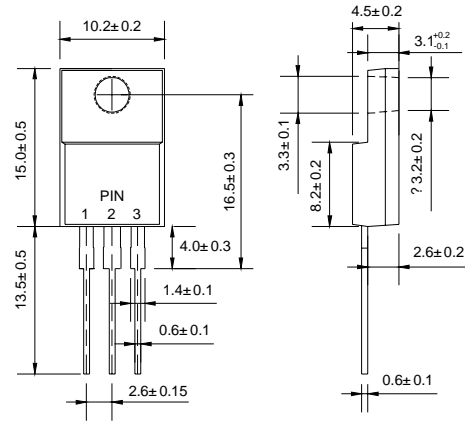
**FEATURES**

- ◇ 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-220AB, molded plastic body
- ◇ Terminals: Solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Position: Any
- ◇ Weight: 0.08ounce, 2.24 grams

**ITO-220AB**



Dimensions in millimeters

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

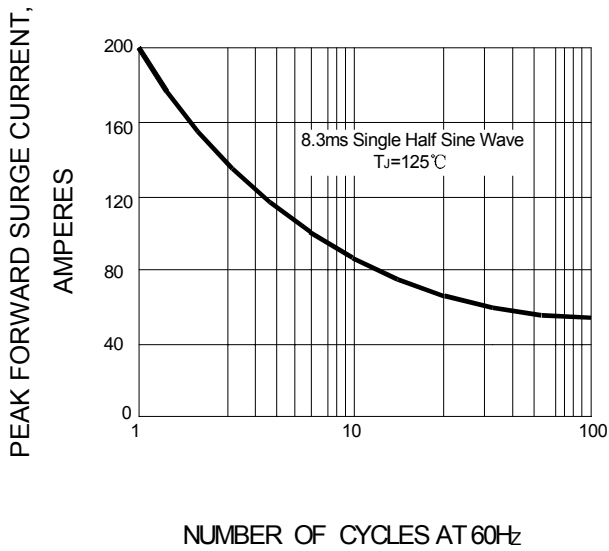
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

		MBRF 3030CT	MBRF 3035CT	MBRF 3040CT	MBRF 3045CT	MBRF 3050CT	MBRF 3060CT	MBRF 3080CT	MBRF 30100CT	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 @ $T_c = 105^\circ C$	$I_{F(AV)}$	30								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	200								A
Maximum forward voltage (Note 1)	$V_F$	-				0.80		0.85		V
( $I_F=15A, T_c=25^\circ C$ )						0.70		0.65		
( $I_F=15A, T_c=125^\circ C$ )		0.57				0.95		0.95		
( $I_F=30A, T_c=25^\circ C$ )		0.84				0.85		0.75		
Maximum reverse current at rated DC blocking voltage	$I_R$	1.0						0.2		mA
@ $T_c=125^\circ C$		60						40		
Maximum thermal resistance (Note2)	$R_{\theta JC}$	6.8						4.4		$^\circ C/W$
Operating junction temperature range	$T_J$	- 55 ---- + 150								$^\circ C$
Storage temperature range	$T_{STG}$	- 55 ---- + 150								$^\circ C$

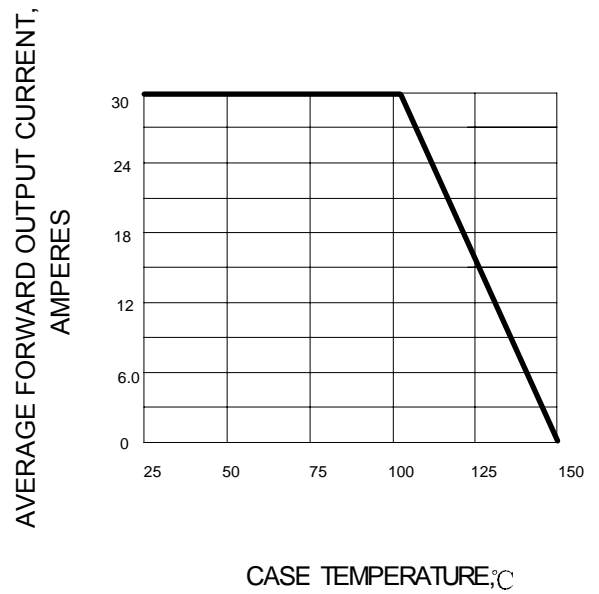
NOTE: 1. Pulse test: 300µs pulse width, 1% duty cycle.

2. Thermal resistance from junction to case.

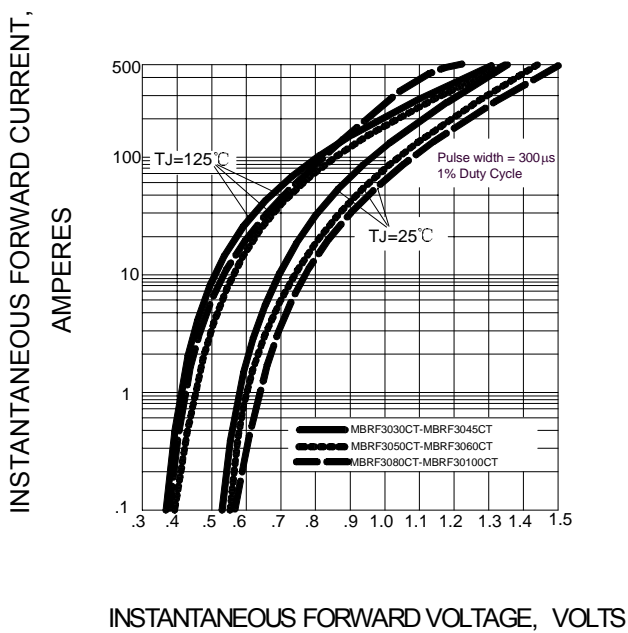
**FIG.1 – PEAK FORWARD SURGE CURRENT**



**FIG.2 – FORWARD DERATING CURVE**



**FIG.3 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**

