

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 30 - 100 V

CURRENT: 30 A

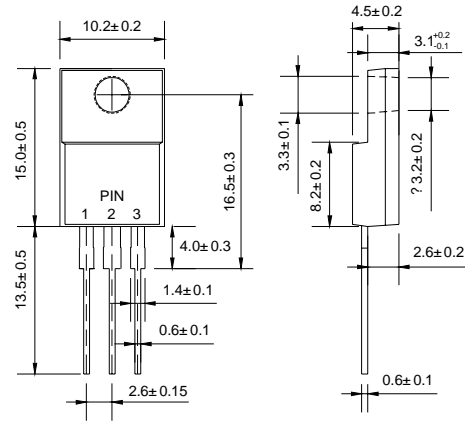
FEATURES

- ◇ 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
						0.70	0.65			
						0.95	0.95			
						0.85	0.75			
Maximum reverse current at rated DC blocking voltage	I_R	1.0						0.2		mA
		60						40		
Maximum thermal resistance (Note2)	$R_{\theta JC}$	6.8						4.4		°C/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.

FIG.1 – PEAK FORWARD SURGE CURRENT

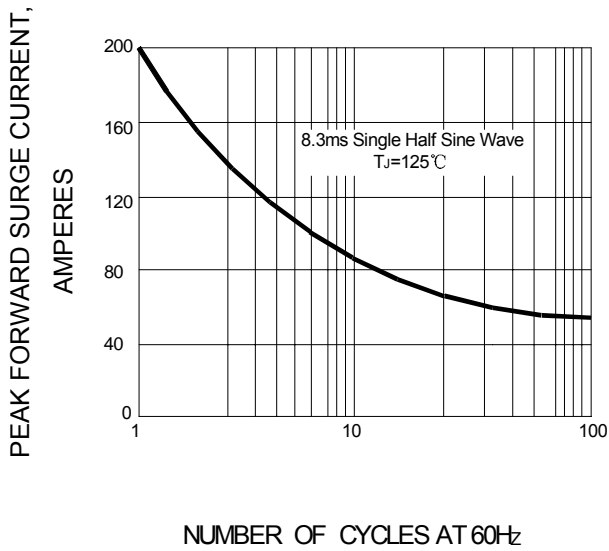


FIG.2 – FORWARD DERATING CURVE

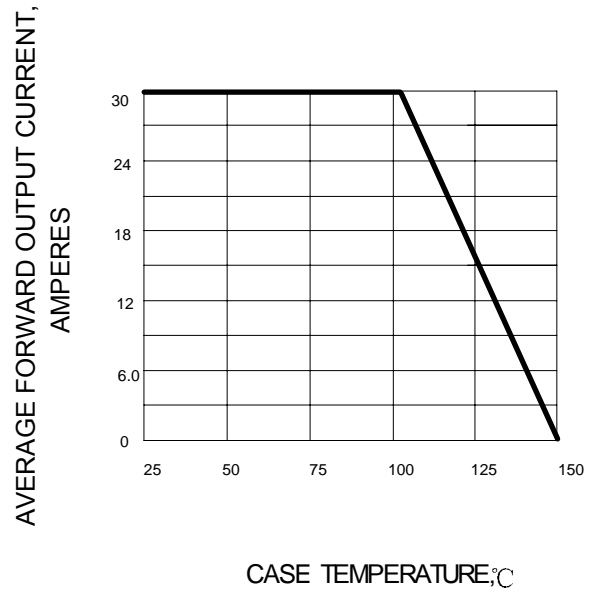


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

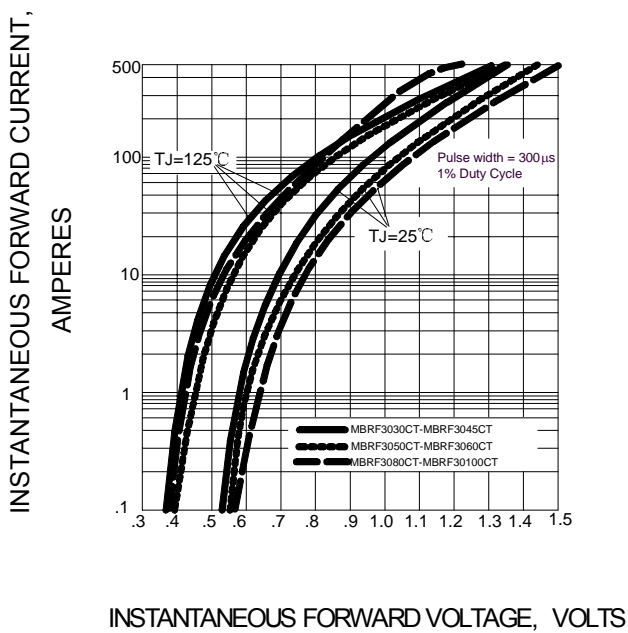


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

