

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 30 - 100 V
CURRENT: 16 A

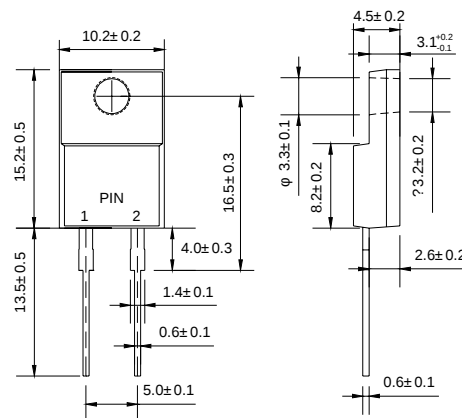
FEATURES

- ◇ 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: 0.056 ounces, 1.587 gram

ITO-220AC



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 1630	MBRF 1635	MBRF 1640	MBRF 1645	MBRF 1650	MBRF 1660	MBRF 1680	MBRF 16100	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 forw ard total device rectified current @T _C = 125°C	I _{F(AV)}	16								A
Peak forw ard surge current 8.3ms single half sine-w ave superimposed on rated load	I _{FSM}	150								A
Maximum forw ard (I _F =16A,T _C =25°C) voltage (Note 1) (I _F =16A,T _C =125°C)	V _F	0.63				0.75		0.85		V
		0.57				0.65		-		
Maximum reverse current @T _C =25°C at rated DC blocking voltage @T _C =125°C	I _R	0.2				1.0				m A
		40				50				
Maximum thermal resistance (Note2)	R _{θJC}					1.5				°C/W
Operating junction temperature range	T _J	- 55 ---- + 150								°C
Storage temperature range	T _{STG}	- 55 ---- + 175								°C

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

2. Thermal resistance from junction to case.

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FIG.1 – FORWARD CURRENT DERATING CURVE

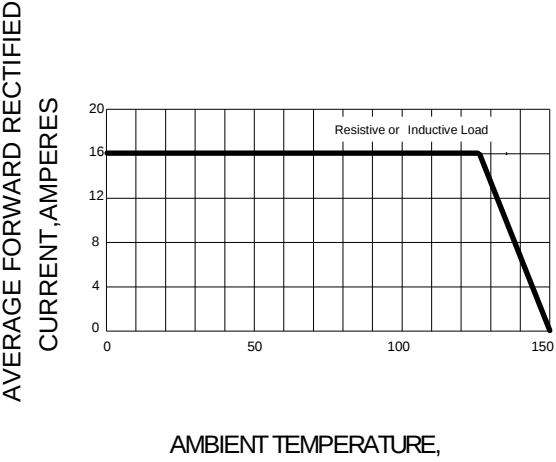


FIG.2 –MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

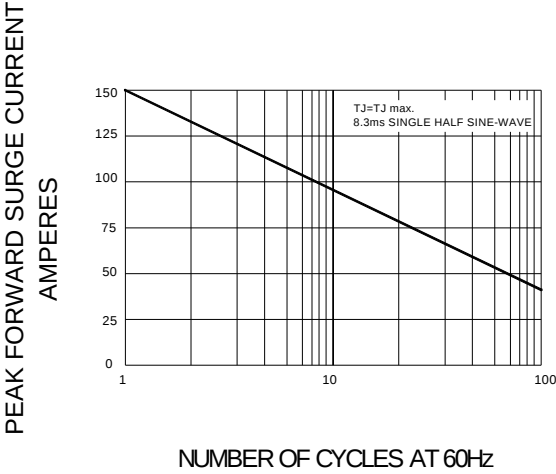


FIG.3 –TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

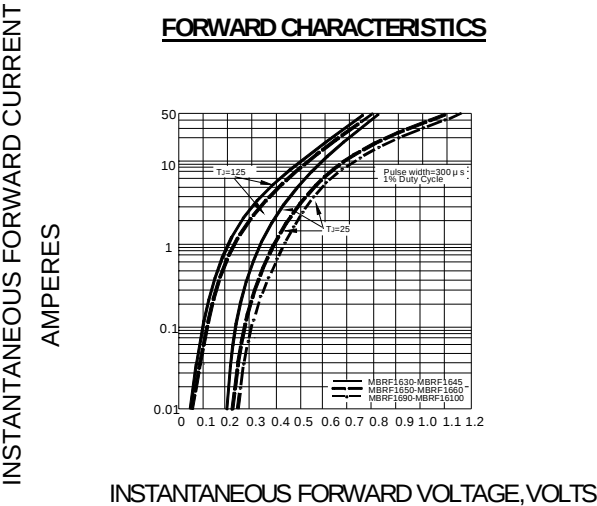


FIG.4-TYPICAL REVERSE CHARACTERISTICS

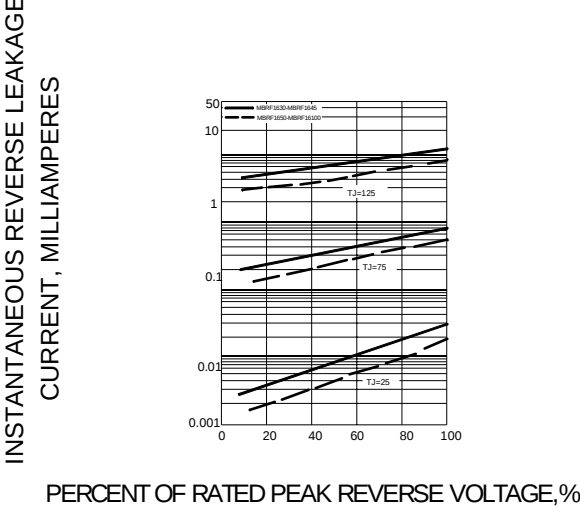


FIG.5-TYPICAL JUNCTION CAPACITANCE

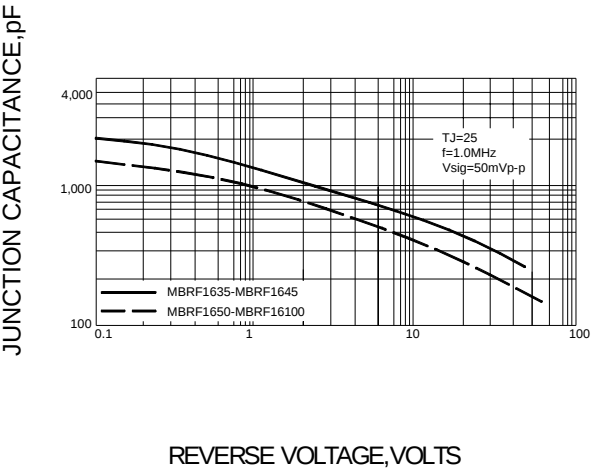


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

