

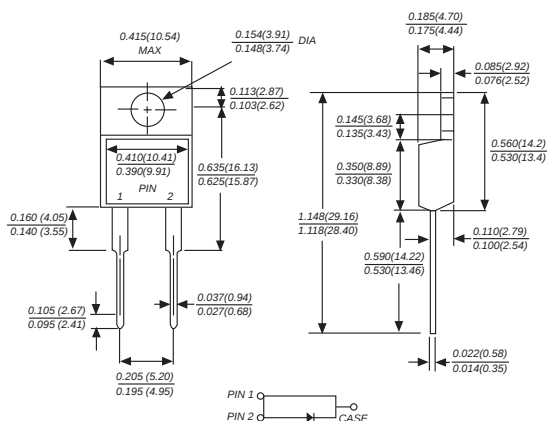


MBRF820 THRU MBRF8100

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 8.0 Amperes

ITO-220AC



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C, 0.25" (6.35mm) from case for 10 seconds

MECHANICAL DATA

Case: ITO-220AC molded plastic body
Terminals: Leads solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Weight: 0.064 ounce, 1.81 grams

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 current derate by 20%.

MDD Catalog Number	SYMBOLS	MBRF 820	MBRF 830	MBRF 840	MBRF 845	MBRF 850	MBRF 860	MBRF 870	MBRF 880	MBRF 890	MBRF 8100	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	45	50	60	70	80	90	100	VOLTS
Maximum RMS voltage	V _{RMS}	14	21	28	32	35	42	49	56	63	70	VOLTS
Maximum DC blocking voltage	V _{DC}	20	30	40	45	50	60	70	80	90	100	VOLTS
Maximum average forward rectified current (see fig.1)	I <sub(av)< sub=""></sub(av)<>	8.0										Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150.0										Amps
Maximum instantaneous forward voltage at 8.0A	V _F	0.65			0.75		0.85					Volts
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	1.0										mA
		15.0			50.0							
Typical junction capacitance (NOTE 1)	C _J	300			250							pF
Typical thermal resistance (NOTE 2)	R _{θJC}	3.0										°C/W
Operating junction temperature range	T _J	-50 to +125			-50 to +150							°C
Storage temperature range	T _{STG}	-50 to +150										°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

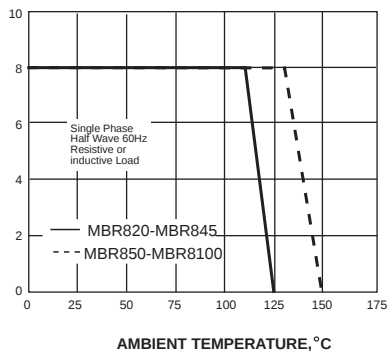
2. Thermal resistance from junction to case



RATINGS AND CHARACTERISTIC CURVES MBRF820 THRU MBRF8100

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

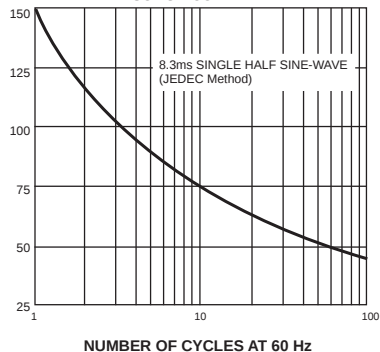
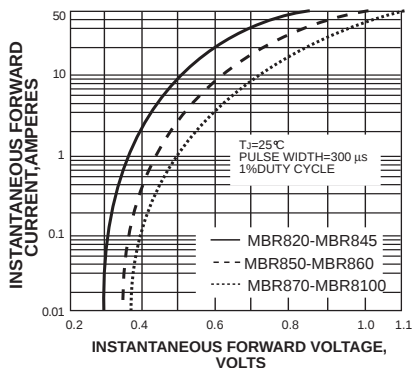


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

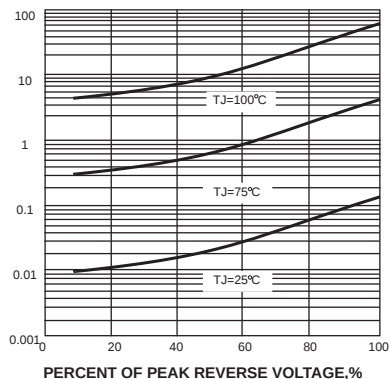
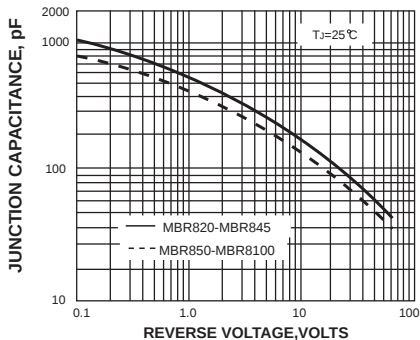
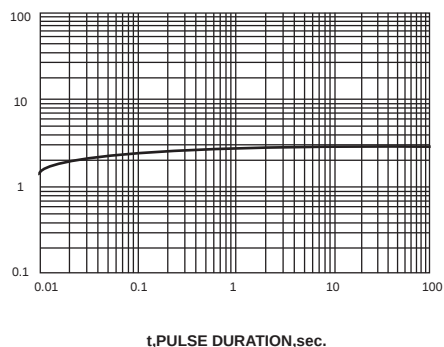


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
 $^{\circ}\text{C}/\text{W}$

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!



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