

MBRD2045 THRU MBRD20200
20 AMP SCHOTTKY BARRIER RECTIFIERS

FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Epitaxial construction

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any
- * Weight: 2.24 grams

VOLTAGE RANGE

45 to 200 Volts

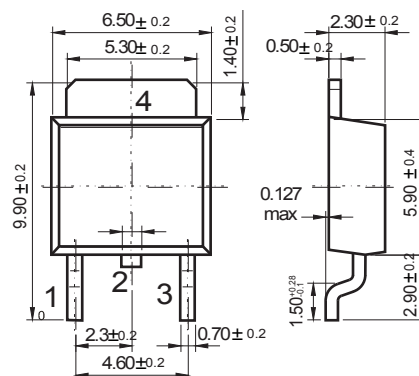
CURRENT

20 Ampere



TO-252

Unit: mm



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	MBRD 2045		MBRD 2060		MBRD 20100		MBRD 20150		MBRD 20200		UNITS
Maximum Recurrent Peak Reverse Voltage	45		60		100		150		200		V
Maximum RMS Voltage	32		42		70		105		140		V
Maximum DC Blocking Voltage	45		60		100		150		200		V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Tc=100°C	20										A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	175										A
Maximum Instantaneous Forward Voltage at 20A	0.60		0.75		0.85		0.90				V
Maximum DC Reverse Current Ta=25°C	0.1				0.02						mA
at Rated DC Blocking Voltage Ta=125°C	5				2						mA
Typical Junction Capacitance (Note1)	500										pF
Typical Thermal Resistance R JA (Note 2)	8										°C/W
Operating Temperature Range Tj	-55 — +150										°C
Storage Temperature Range Tstg	-55 — +150										°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

RATING AND CHARACTERISTIC CURVES (MBRD2045 THRU MBRD20200)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

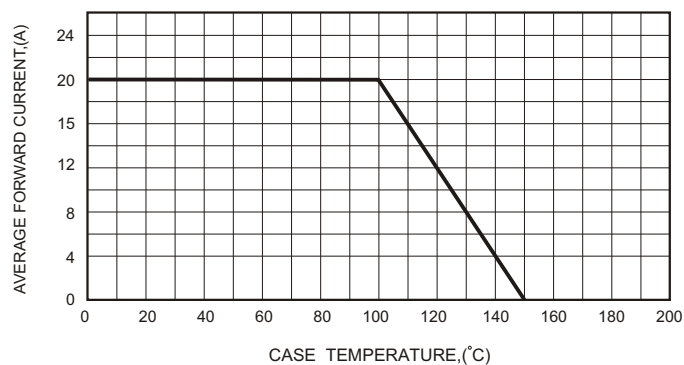


FIG.2-TYPICAL FORWARD CHARACTERISTICS

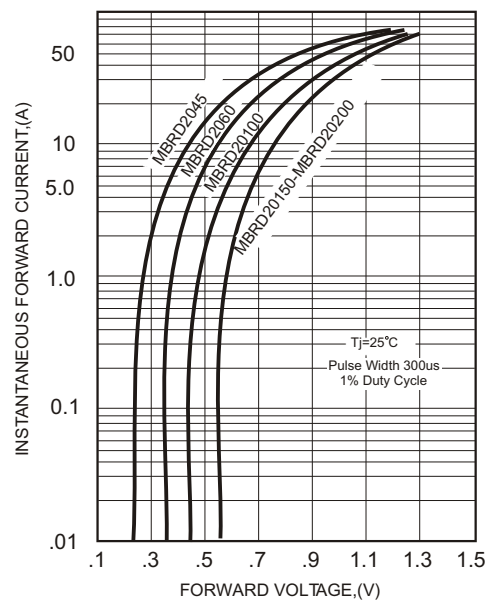


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

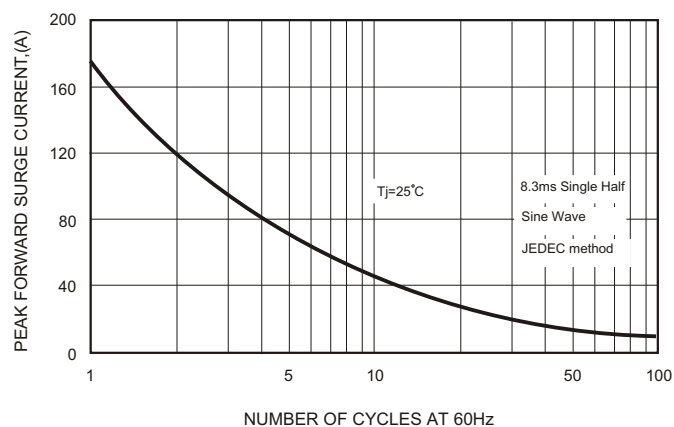


FIG.4-TYPICAL JUNCTION CAPACITANCE

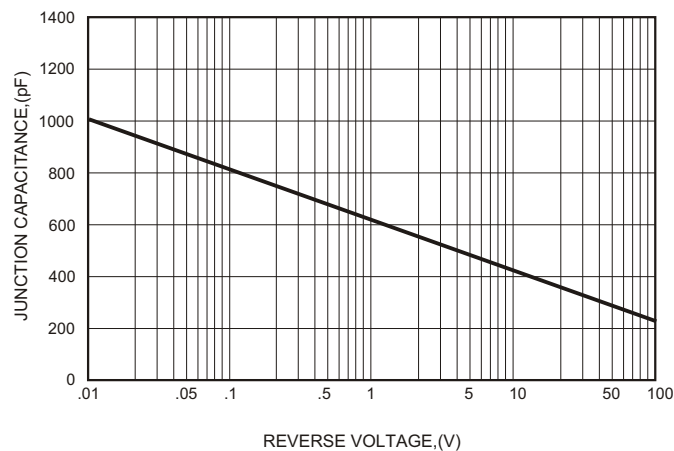


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

