MBR2040 THRU MBR20200

20.0 AMP SCHOTTKY BARRIER RECTIFIERS

FEATURES

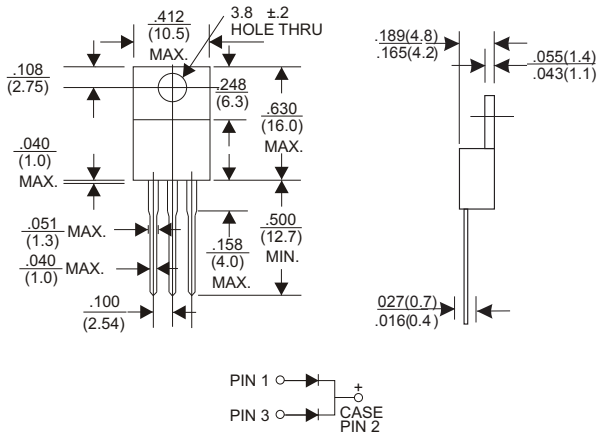
* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability
* Epitaxial construction

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Lead solderable per MIL-STD-202, method 208 guranteed
* Polarity: As Marked
* Mounting position: Any
* Weight:1.81 grams
* Lead Free Finish/RoHS Compliant

VOLTAGE RANGE
40 to 200 Volts
CURRENT
20.0 Ampere

TO-220



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	MBR2040	MBR2060	MBR2080	MBR20100	MBR20150	MBR20200	UNITS
Maximum Recurrent Peak Reverse Voltage	40	60	80	100	150	200	V
Maximum RMS Voltage	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current See Fig. 1	20						A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150						A
Maximum Instantaneous Forward Voltage per Leg at 10.0A	0.65	0.75	0.85		0.90	0.95	V
Maximum DC Reverse Current Ta=25˚C	500						uA
at Rated DC Blocking Voltage Ta=100˚C	50						mA
Typical Junction Capacitance (Note1)	700				460		pF
Typical Thermal Resistance R JC (Note 2)	3.0						˚C/W
Operating Temperature Range Tj	-65 — +150				-65 — +150		˚C
Storage Temperature Range TSTG	-65 — +150						˚C

NOTES:

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

2. Thermal Resistance Junction to Case.

RATING AND CHARACTERISTIC CURVES (MBR2040 THRU MBR20200)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

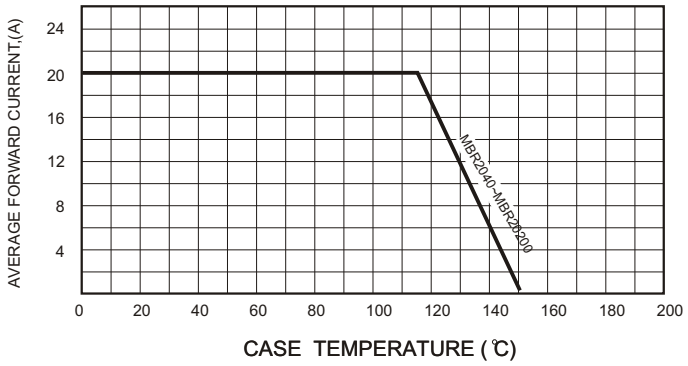


FIG.2-TYPICAL FORWARD CHARACTERISTICS

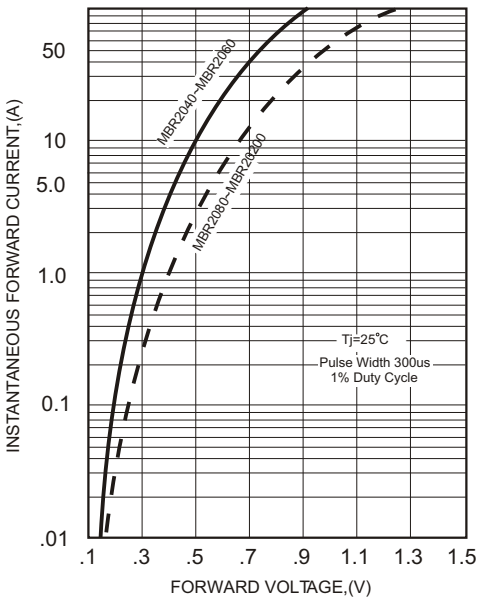


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

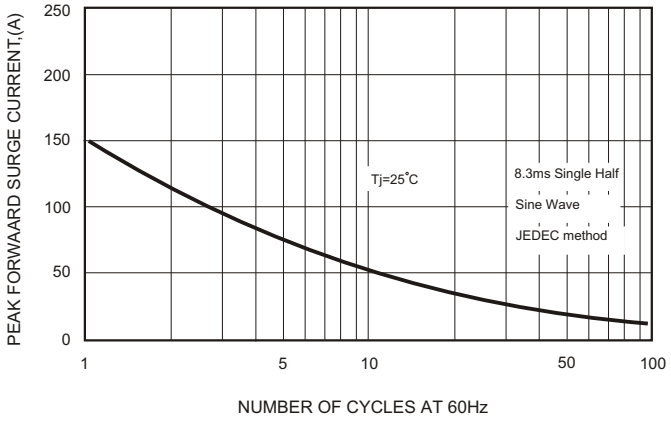


FIG.4-TYPICAL JUNCTION CAPACITANCE

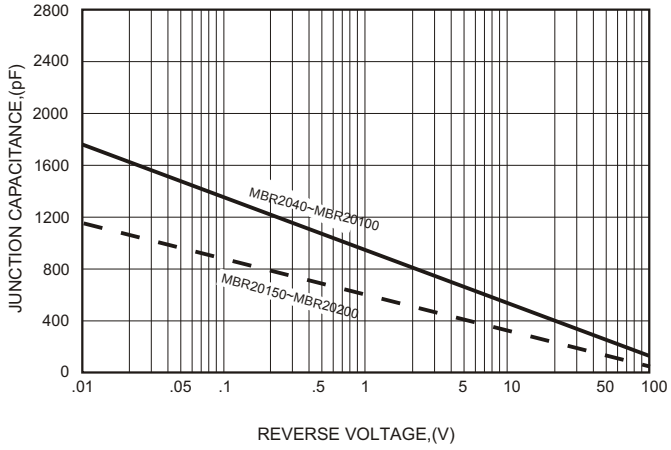


FIG.5 - TYPICAL REVERSE CHARACTERISTICS