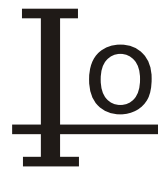


# MBR2040 THRU MBR20200

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 guaranteed
- \* Polarity: As Marked
- \* Mounting position: Any
- \* Weight: 1.81 grams
- \* Lead Free Finish/RoHS Compliant

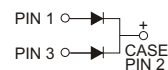
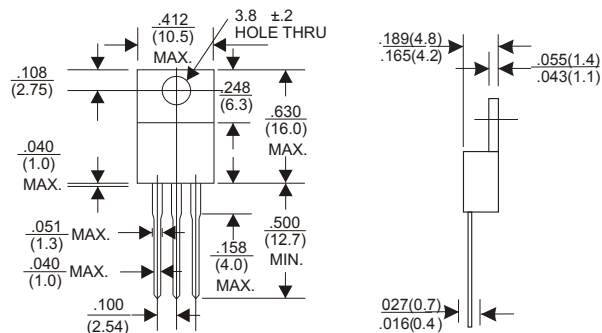
## VOLTAGE RANGE

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 unless otherwise 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						µA
at Rated DC Blocking Voltage Ta=100°C	50						mA
Typical Junction Capacitance (Note 1)	700				460		pF
Typical Thermal Resistance R <sub>JC</sub> (Note 2)	3.0						°C/W
Operating Temperature Range T <sub>j</sub>	-65 — +150				-65 — +150		°C
Storage Temperature Range T <sub>STG</sub>	-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

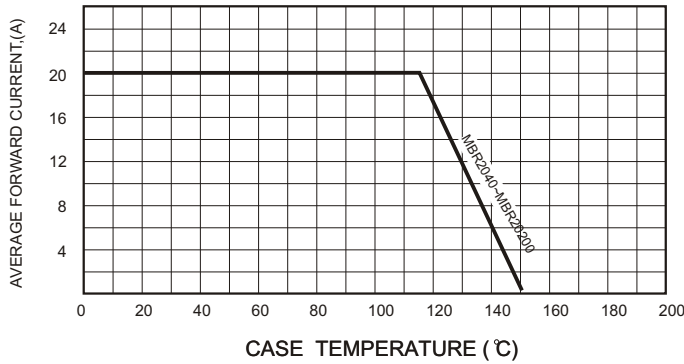


FIG.2-TYPICAL FORWARD CHARACTERISTICS

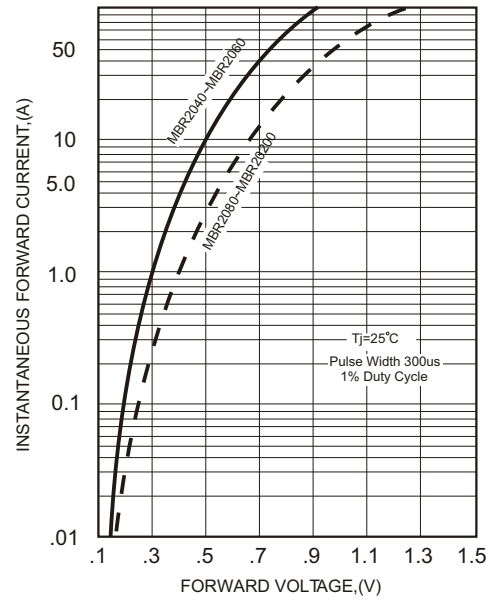


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

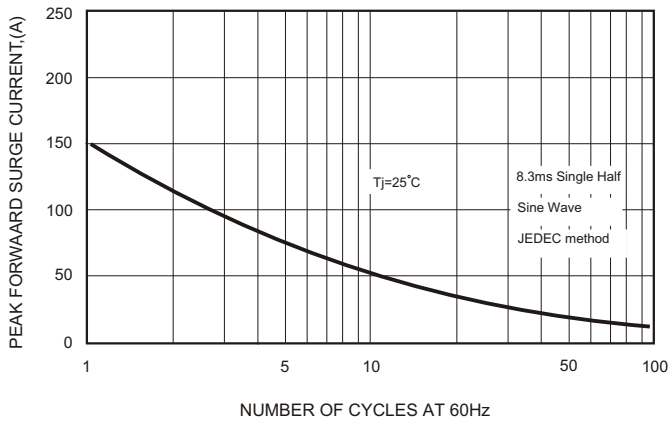


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

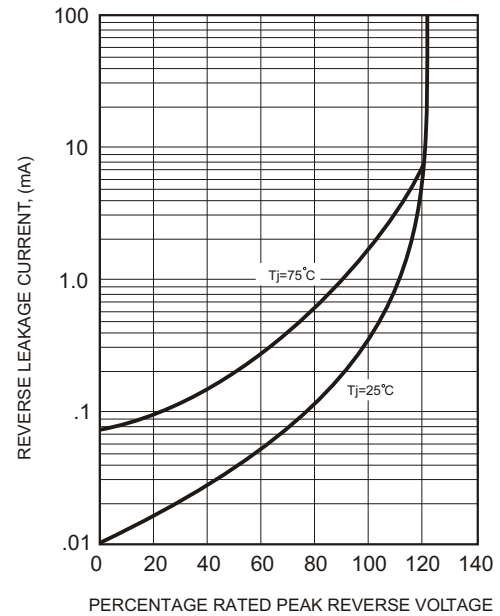


FIG.4-TYPICAL JUNCTION CAPACITANCE

