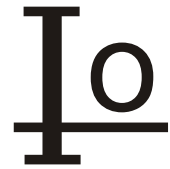


# MBR3020 THRU MBR30100



30.0 AMP SCHOTTKY BARRIER RECTIFIERS

## FEATURES

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

## MECHANICAL DATA

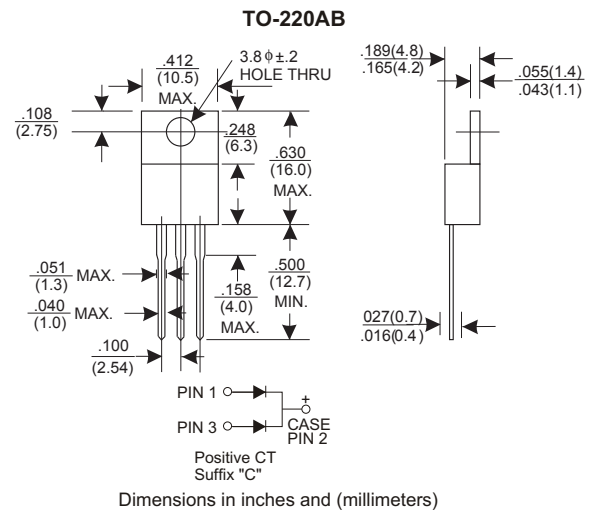
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: As Marked
- \* Mounting position: Any
- \* Weight: 1.81 grams
- \* Lead Free Finish/RoHS Compliant

## VOLTAGE RANGE

20 to 100 Volts

## CURRENT

30.0 Ampere



## 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	MBR3020	MBR3030	MBR3035	MBR3040	MBR3045	MBR3060	MBR30100	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	35	40	45	60	100	V
Maximum RMS Voltage	14	21	24	28	32	42	70	V
Maximum DC Blocking Voltage	20	30	35	40	45	60	100	V
Maximum Average Forward Rectified Current See Fig. 1	30							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	300							A
Maximum Instantaneous Forward Voltage per Leg at 15.0A	0.65					0.75	0.85	V
Maximum DC Reverse Current at Rated DC Blocking Voltage Ta=25°C	500					1.0		µA
Typical Thermal Resistance R <sub>JC</sub> (Note 1)	1.4							°C/W
Operating Temperature Range T <sub>j</sub>	-65 — +125					-65 — +150		°C
Storage Temperature Range T <sub>STG</sub>	-65 — +150							°C

### NOTES:

1. Thermal Resistance Junction to Case.

# RATING AND CHARACTERISTIC CURVES (MBR3020 THRU MBR30100)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

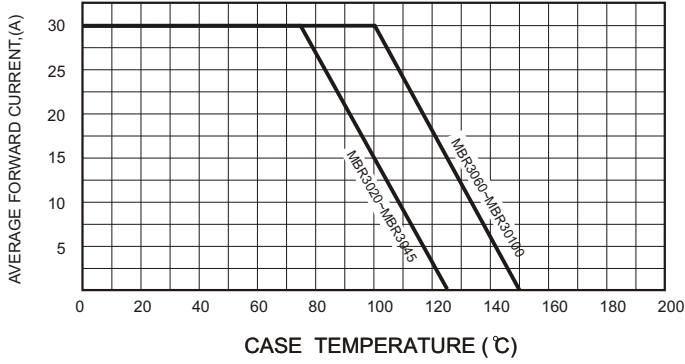


FIG.2-TYPICAL FORWARD CHARACTERISTICS

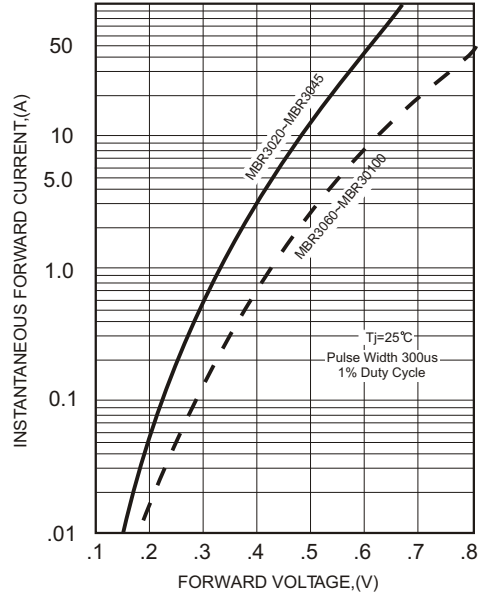


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

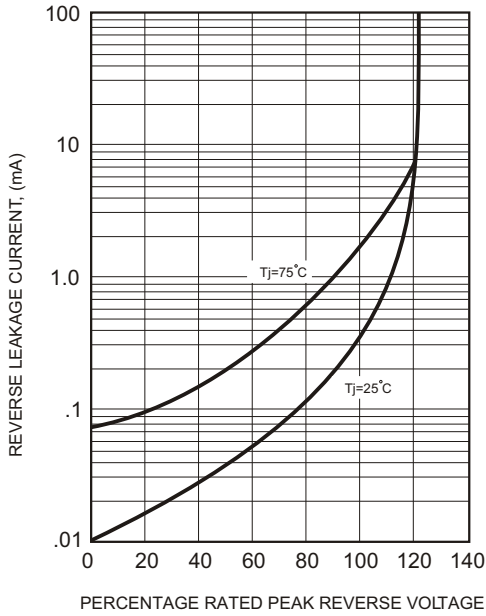


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

