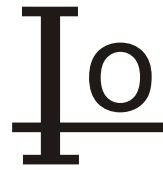


# MBR1020CT THRU MBR10200CT

10.0 AMP SCHOTTKY BARRIER RECTIFIERS



## FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction
- \* Lead Free Finish/RoHS Compliant

## 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

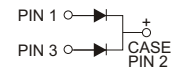
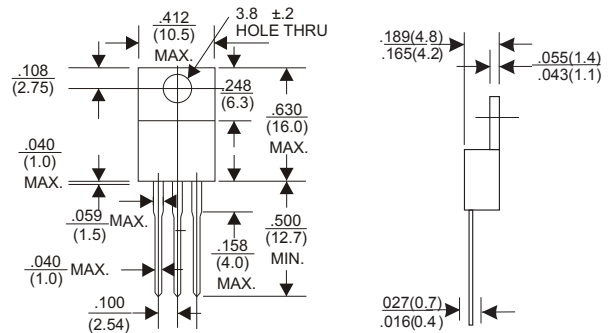
## VOLTAGE RANGE

20 to 200 Volts

## CURRENT

10.0 Ampere

### TO-220AB



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	MBR1020CT	MBR1030CT	MBR1040CT	MBR1050CT	MBR1060CT	MBR1080CT	MBR10100CT	MBR10150CT	MBR10200CT	UNITS	
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	150	200	V	
Maximum RMS Voltage	14	21	28	35	42	56	70	105	140	V	
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	150	200	V	
Maximum Average Forward Rectified Current See Fig. 1	10									A	
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	200									A	
Maximum Instantaneous Forward Voltage per Leg at 5.0A	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	100									mA	
Typical Junction Capacitance (Note1)	700				460					pF	
Typical Thermal Resistance R <sub>JC</sub> (Note 2)	100									°C/W	
Operating Temperature Range T <sub>J</sub>	-65 — +125					-65 — +150					°C
Storage Temperature Range T <sub>STG</sub>	-65 — +150									°C	
Voltage rate of change (Rated V <sub>R</sub> )	10000									V/μs	

### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Case.

# RATING AND CHARACTERISTIC CURVES (MBR1020CT THRU MBR10200CT)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

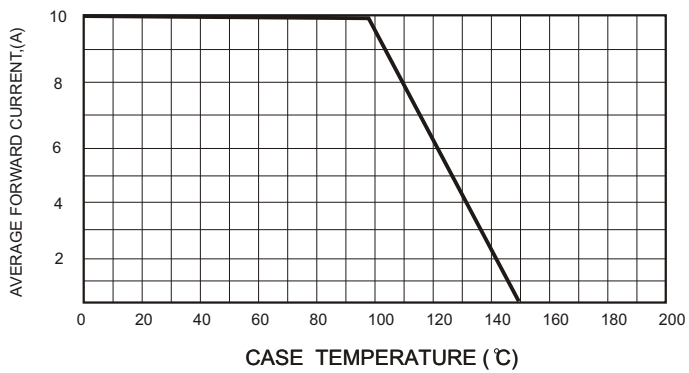


FIG.2-TYPICAL FORWARD CHARACTERISTICS

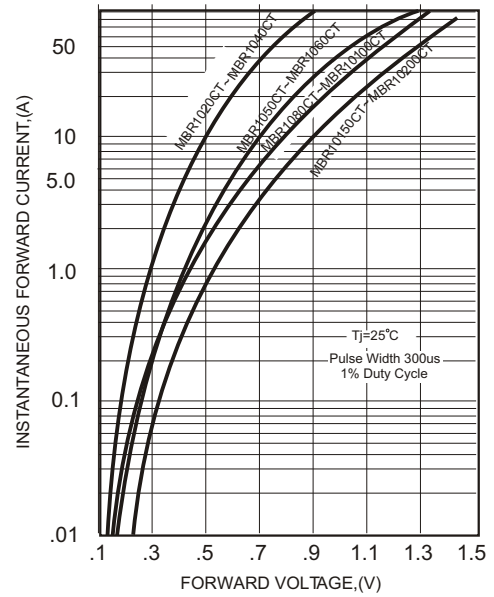


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

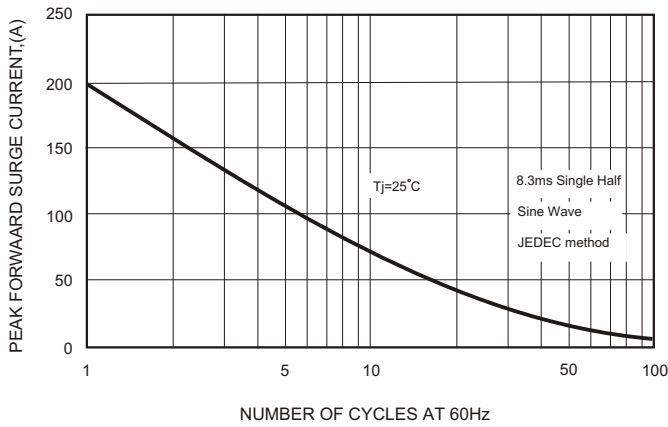


FIG.4-TYPICAL JUNCTION CAPACITANCE

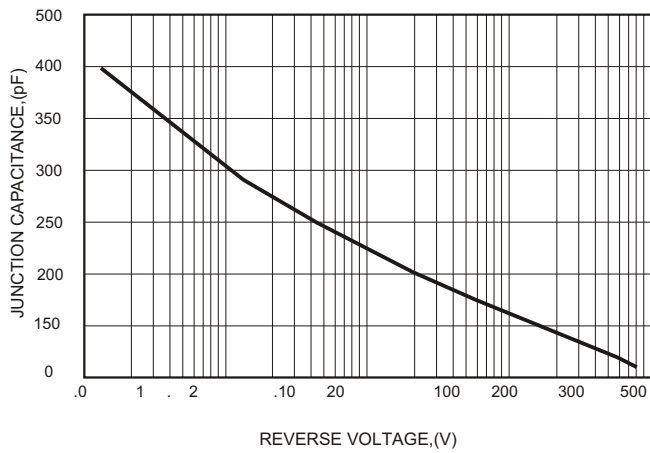


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

