



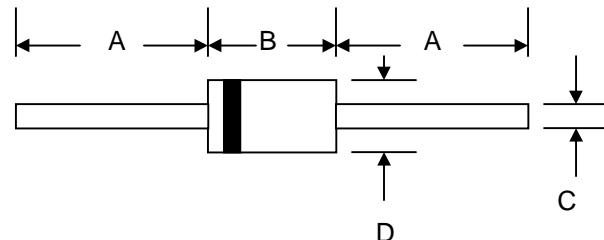
## MBR320 – MBR3200



### 3.0A SCHOTTKY BARRIER DIODE

#### Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



#### Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.40 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version**

DO-201AD		
Dim	Min	Max
A	24.5	—
B	7.20	9.50
C	1.10	1.30
D	5.00	5.60

All Dimensions in mm

#### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	MBR 320	MBR 330	MBR 340	MBR 350	MBR 360	MBR 380	MBR 3100	MBR 3150	MBR 3200	Unit								
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	20	30	40	50	60	80	100	150	200	V								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	35	42	56	70	105	140	V								
Average Rectified Output Current @T <sub>L</sub> = 95°C (Note 1)	I <sub>O</sub>	3.0									A								
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	80									A								
Forward Voltage @I <sub>F</sub> = 3.0A	V <sub>FM</sub>	0.55		0.75		0.85		0.92		V									
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	0.2 20				0.05 10				mA									
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	250									pF								
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	20									°C/W								
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-55 to +150									°C								

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

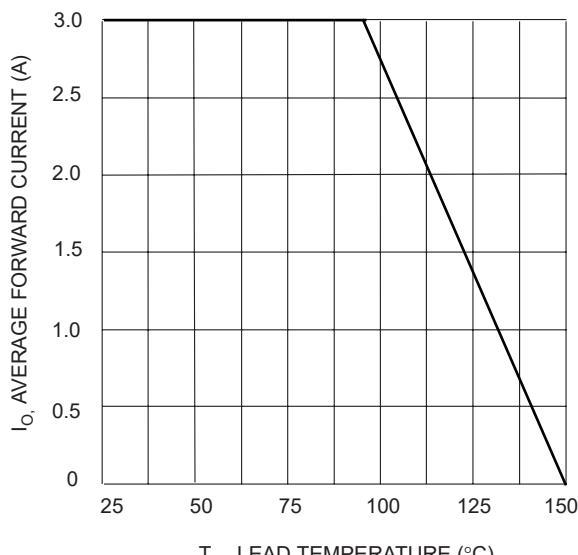


Fig. 1 Forward Current Derating Curve

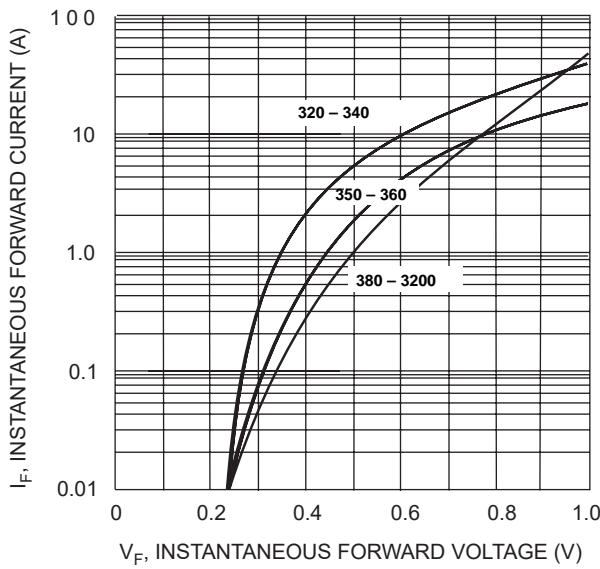


Fig. 2 Typical Forward Characteristics

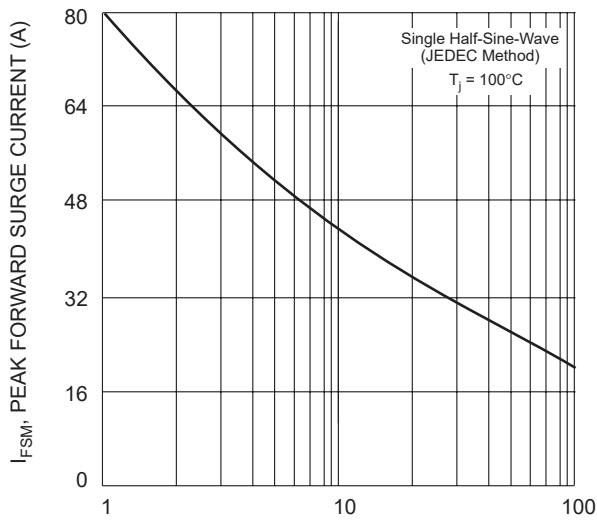


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

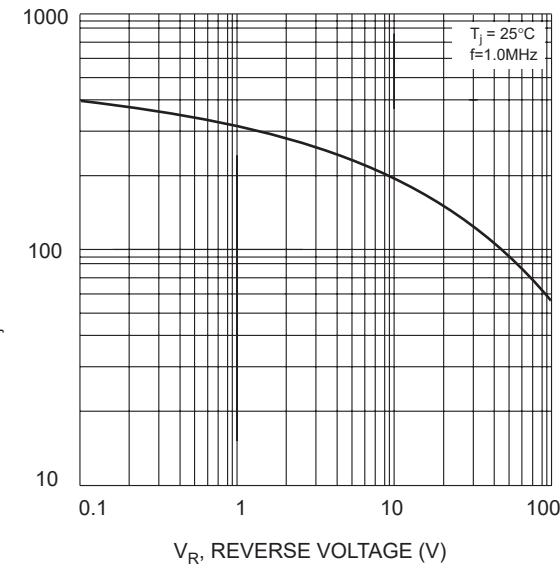


Fig. 4 Typical Junction Capacitance

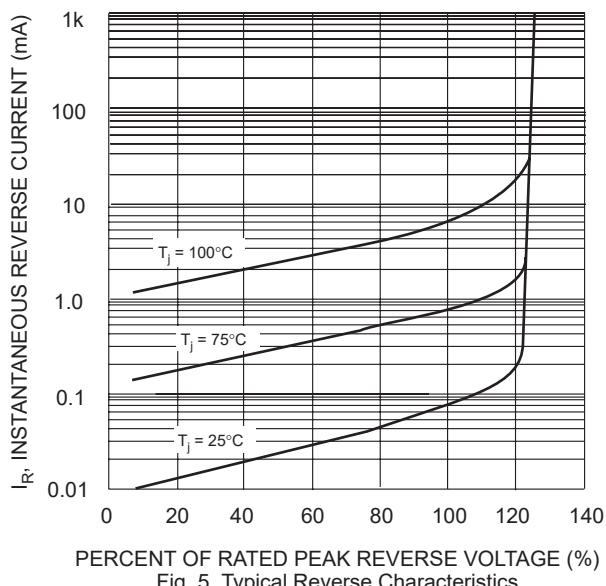


Fig. 5 Typical Reverse Characteristics