

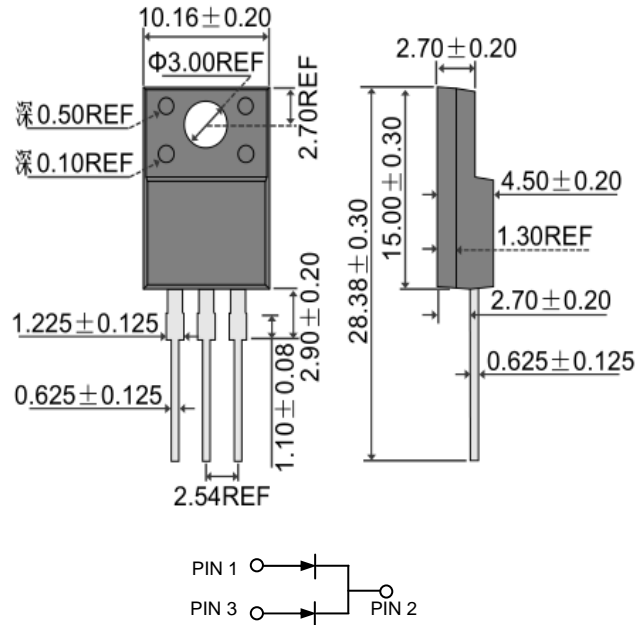
Features

- Power Schottky Barrier Chip
- Guard Ring for Transient Protection
- Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Current Capability
- Epoxy Meets UL 94V-0 Classification
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes

Mechanical Data

- Case:
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 1.9 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 0.6 N.m Max.
- **Lead Free: For RoHS / Lead Free Version**

TO-220F



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	MBR10150FCT	MBR10200FCT	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	150	200	V
Working Peak Reverse Voltage	V _{RWM}			
DC Blocking Voltage	V _R			
RMS Reverse Voltage	V _{R(RMS)}	105	140	V
Average Rectified Output Current @T _C = 100°C	I _O	10 5.0		A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150		A
Forward Voltage per diode @I _F = 5.0A	V _{FM}	0.92		V
Peak Reverse Current At Rated DC Blocking Voltage	I _{RM}	0.2 10		mA
Typical Junction Capacitance (Note 1)	C _J	200		pF
Thermal Resistance Junction to Ambient per diode	R _{JA}	62		°C/W
Thermal Resistance Junction to Case per diode	R _{JC}	4.0		
RMS Isolation Voltage Terminals to Case, t = 1 min	V _{ISO}	1500		V
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150		°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

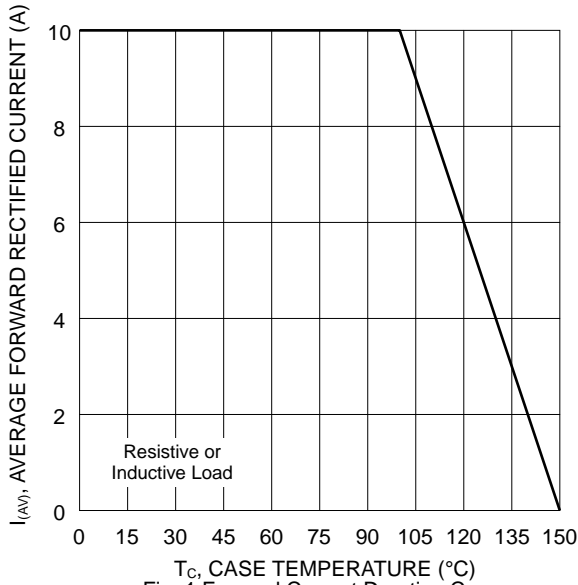


Fig. 1 Forward Current Derating Curve

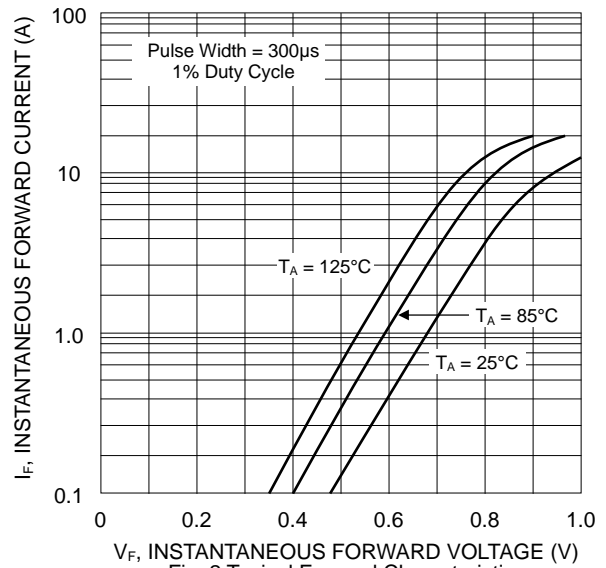


Fig. 2 Typical Forward Characteristics

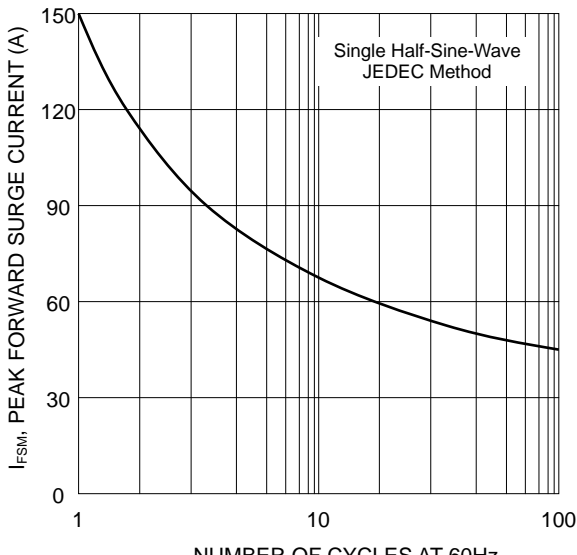


Fig. 3 Forward Surge Current Derating Curve

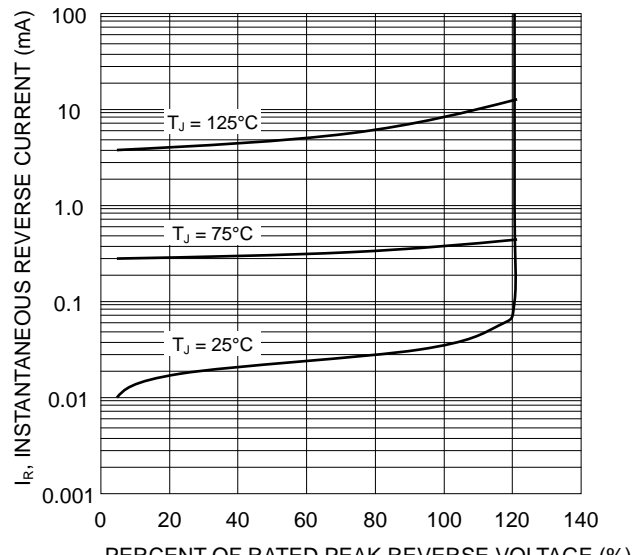


Fig. 4 Typical Reverse Characteristics

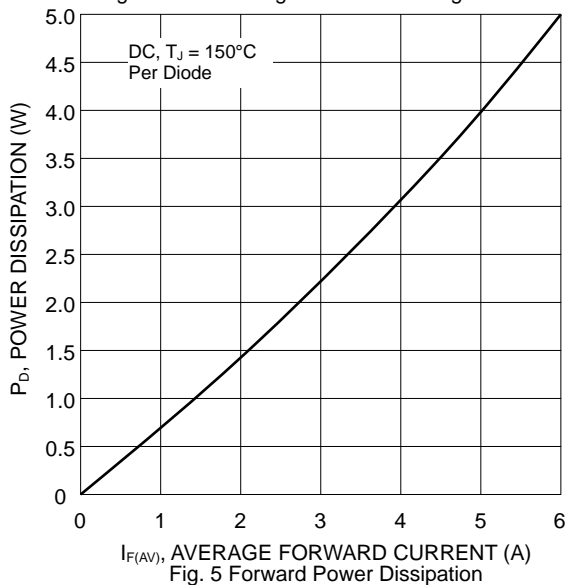


Fig. 5 Forward Power Dissipation

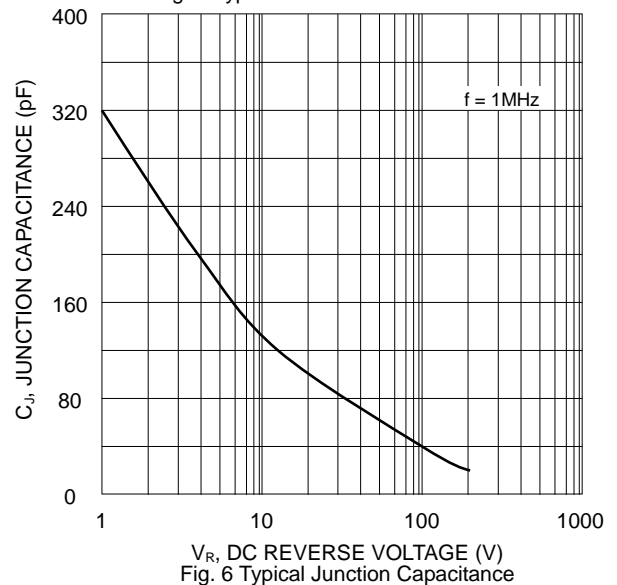


Fig. 6 Typical Junction Capacitance