

TO-220AC Plastic-Encapsulate Diodes

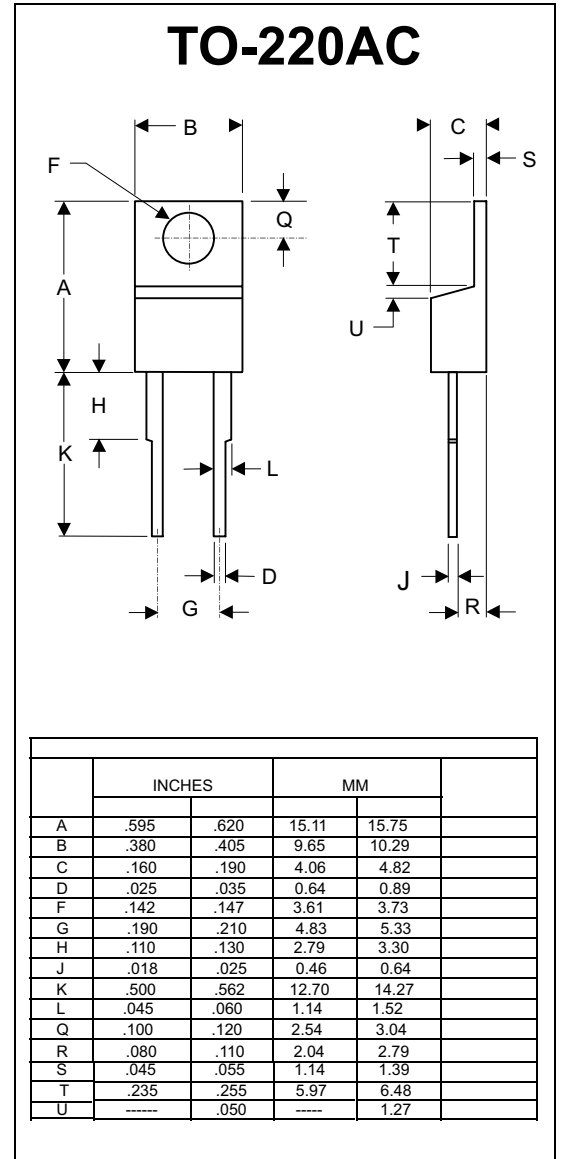
MBR10100 SCHOTTKY BARRIER RECTIFIER

FEATURE

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

ELECTRICAL CHARACTERISTICS (Tamb=25 °C unless otherwise specified)

CHARACTERISTICS	Symbol	VALUES	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Average Rectified Output Current (Note 1)	I_O	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load	I_{FSM}	150	A
Repetitive Peak Reverse Surge Current $\mu s @ t \leq 2.0$	I_{RRM}	0.5	A
Voltage Rate of Change (Rated V_R)	dv/dt	10000	V/ μs
Forward Voltage Drop @ $I_F=10A, T_C=125^\circ C$ @ $I_F=10A, T_C=25^\circ C$	V_F	0.8 0.7	V
Peak Reverse Current at Rated DC Blocking Voltage @ $T_C=25^\circ C$ @ $T_C=125^\circ C$	I_R	0.1 6.0	mA
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ C$



Notes: 1. Thermal resistance junction to case mounted heat sink.

Typical Characteristics

MBR10100

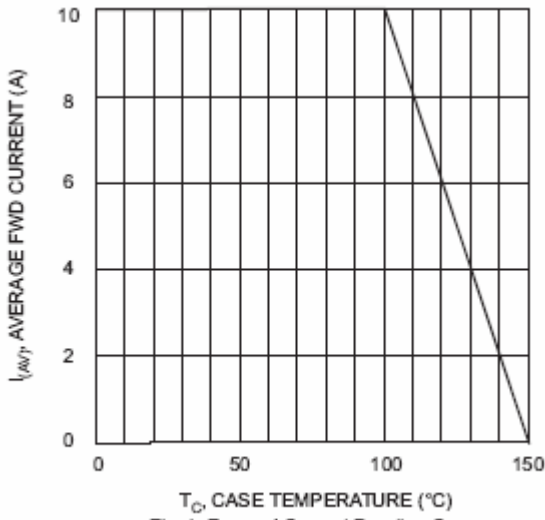


Fig. 1 Forward Current Derating Curve

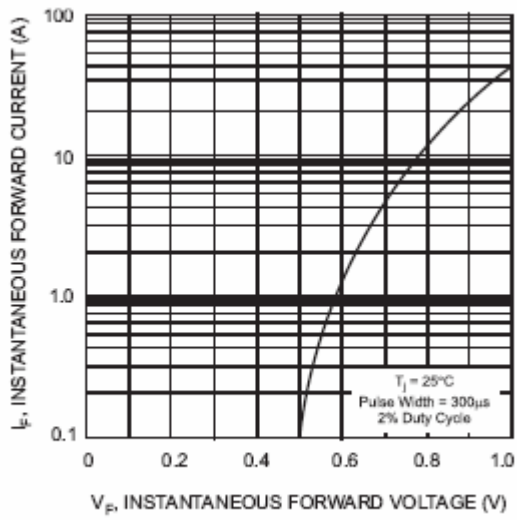


Fig. 2 Typical Forward Characteristics

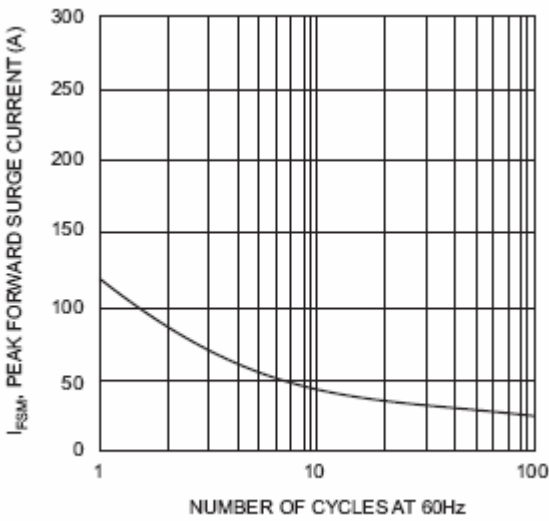


Fig. 3 Max Non-Repetitive Surge Current

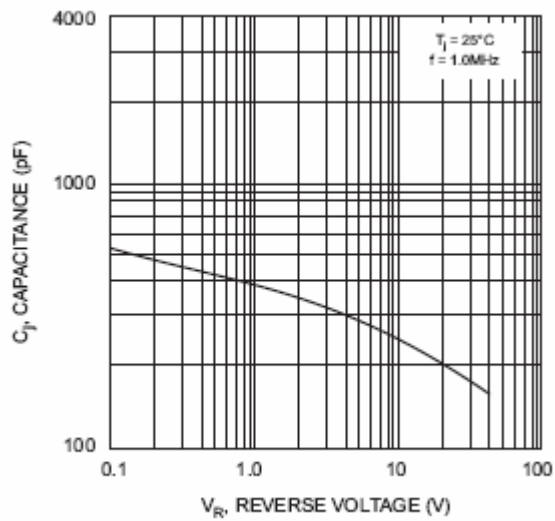


Fig. 4 Typical Junction Capacitance