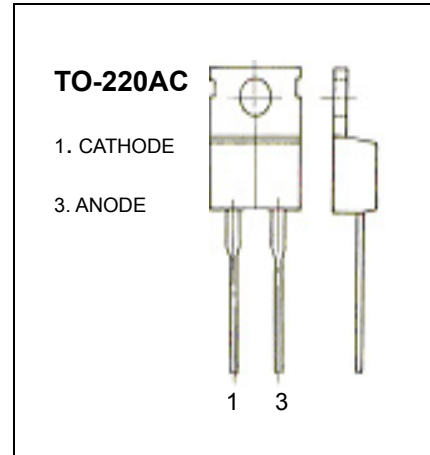


TO-220AC Plastic-Encapsulate Diodes

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 (T_{amb}=25°C unless otherwise specified)

Characteristic	Symbol	Value	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 @ t _s ≤ 2.0μs	I _{RSM}	0.5	A
Voltage Rate of Change(Rated V _R)	dv/dt	10000	V/μs
Forward Voltage Drop @ I _F =10A, T _C =125°C	V _F	0.7	V
@ I _F =10A, T _C =25°C		0.8	
Peak Reverse Current @ T _C = 25°C	I _R	0.1	mA
at Rated DC Blocking Voltage @ T _C =125°C		6.0	
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +150	°C

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

Typical Characteristics

MBR10100

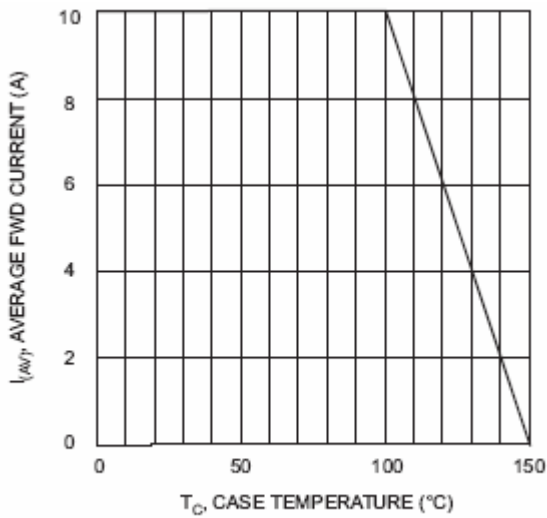


Fig. 1 Forward Current Derating Curve

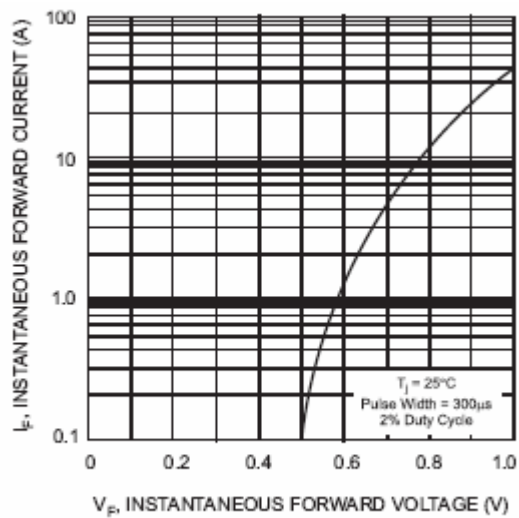


Fig. 2 Typical Forward Characteristics

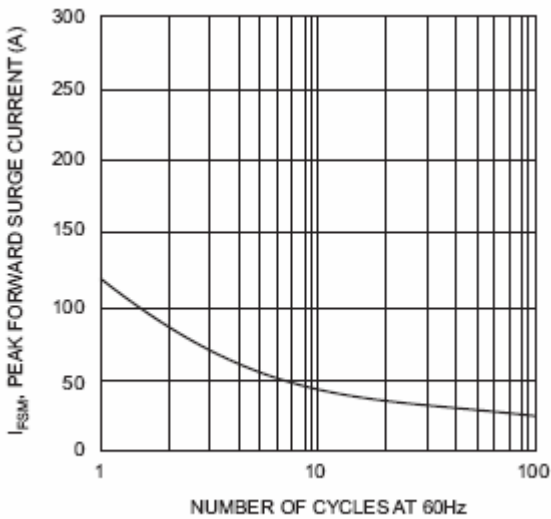


Fig. 3 Max Non-Repetitive Surge Current

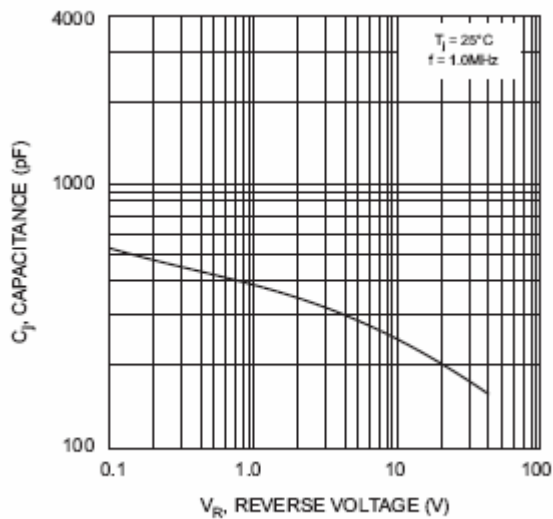


Fig. 4 Typical Junction Capacitance