



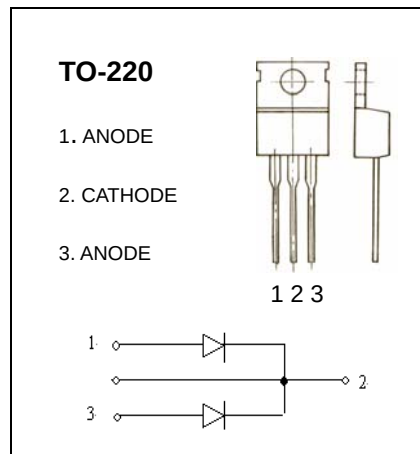
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-220 Plastic-Encapsulate Diodes

MBR20100CT SCHOTTKY BARRIER RECTIFIER

FEATURES

- 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)

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	V
PMS Reverse Voltage	$V_{R(RMS)}$	70	V
Average Rectified Output Current (Note 1) Per leg Per package	I_O	10 20	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load	I_{FSM}	150	A
Forward Voltage Drop @ $I_F=10A$, $T_C=125^\circ C$ @ $I_F=10A$, $T_C=25^\circ C$ @ $I_F=20A$, $T_C=125^\circ C$ @ $I_F=20A$, $T_C=25^\circ C$	V_F	0.75 0.85 0.85 0.95	V
Peak Reverse Current @ $T_C=25^\circ C$ at Rated DC Blocking Voltage @ $T_C=125^\circ C$	I_R	0.15 150	mA
Typical Junction Capacitance (Note 2)	C_j	1000	pF
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150	$^\circ C$

Notes: 1. Thermal resistance junction to case mounted heat sink.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

Typical Characteristics

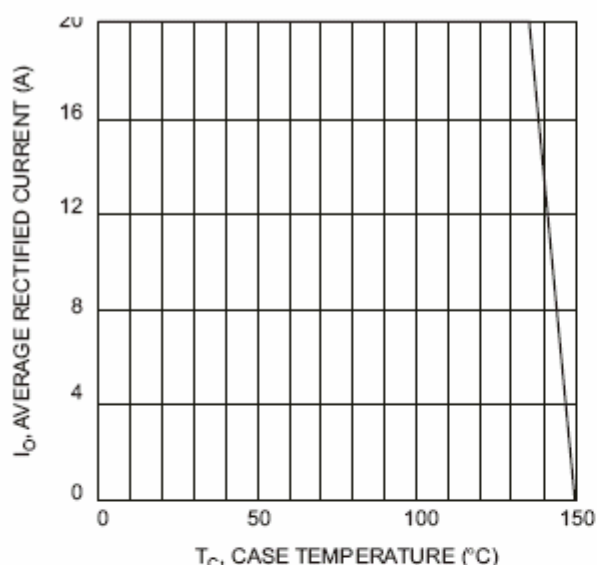


Fig. 1 Fwd Current Derating Curve

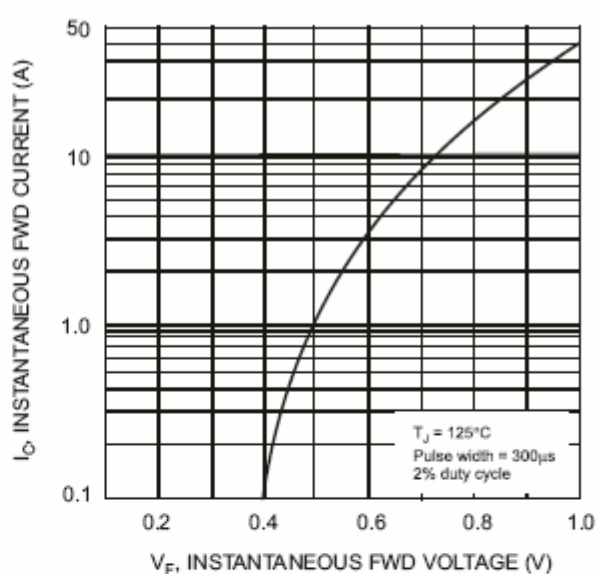


Fig. 2 Typical Forward Characteristics

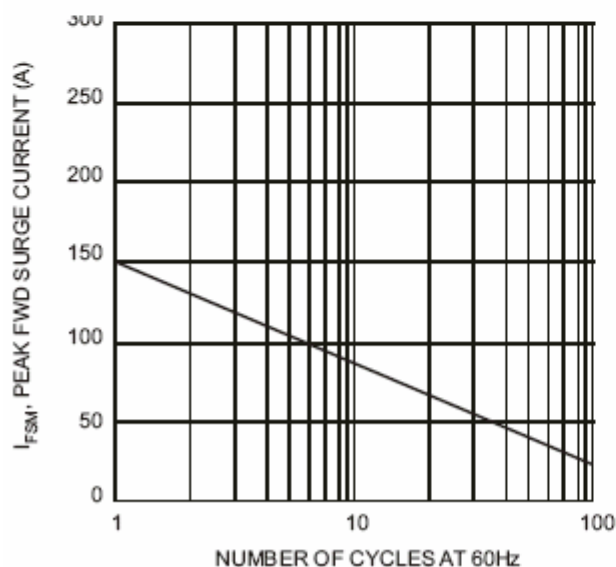


Fig. 3 Max Non-Repetitive Surge Current

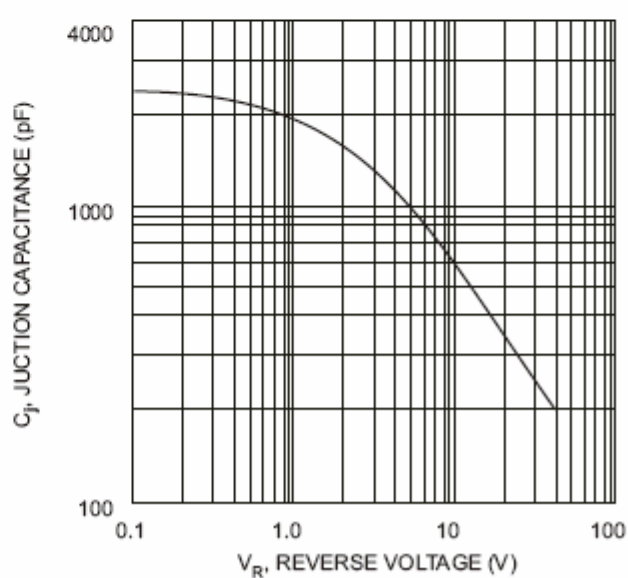


Fig. 4 Typical Junction Capacitance