



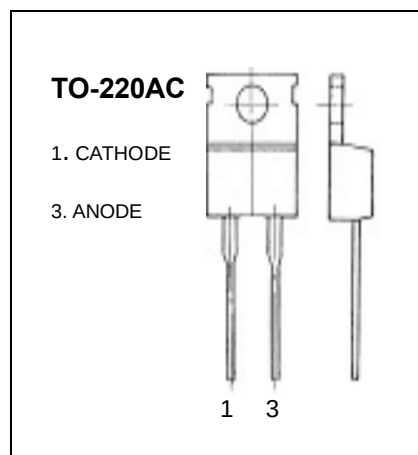
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

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 ($T_{amb}=25^{\circ}\text{C}$ 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
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 @ $t \leq 2.0\mu\text{s}$	I_{RRM}	0.5	A
Voltage Rate of Change(Rated V_R)	dv/dt	10000	V/ μs
Forward Voltage Drop @ $I_F=10\text{A}$, $T_C=125^{\circ}\text{C}$ @ $I_F=10\text{A}$, $T_C=25^{\circ}\text{C}$ @ $I_F=20\text{A}$, $T_C=125^{\circ}\text{C}$ @ $I_F=20\text{A}$, $T_C=25^{\circ}\text{C}$	V_F	0.7 0.8 0.85 0.95	V
Peak Reverse Current @ $T_C=25^{\circ}\text{C}$ at Rated DC Blocking Voltage @ $T_C=125^{\circ}\text{C}$	I_R	0.1 6.0	mA
Operating and Storage Temperature Range	T_J , T_{STG}	-55 to +150	$^{\circ}\text{C}$

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