WAN LI ELECTRONICS (WUXI) CO.,LTD

TO-220 Plastic-Encapsulate Transistors

MBR1030CT-MBR1060CT

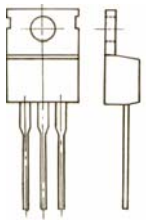
SCHOTTKY BARRIER RECTIFIER

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

TO-220

1. ANODE
2. CATHODE
3. ANODE



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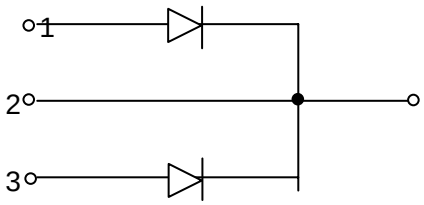

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Characteristic	Symbol	MBR 1030CT	MBR 1035CT	MBR 1040CT	MBR 1045CT	MBR 1050CT	MBR 1060CT	Unit
Peak Repetitive Reverse Voltage **Working Peak Reverse Voltage** **DC Blocking Voltage**	V_{RRM} V_{RWM} V_R	30	35	40	45	50	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	24.5	28	31.5	35	42	V
Average Rectified Output Current **(Note 1) @ T_C=105℃**	I_O	10						A
Non-Repetitive Peak Forward Surge Current **8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)**	I_{FSM}	125						A
Repetitive Peak Reverse Surge Current **@ t≤ 2.0μs**	I_{RRM}	1.0						A
Forward Voltage Drop @ I_F=5.0A, T_C=125℃ **@ I_F=5.0A, T_C= 25℃**	V_{FM}	0.57 0.70 -				0.70 0.80 -		V
Peak Reverse Current @ T_C= 25℃ **at Rated DC Blocking Voltage @ T_C=125℃**	I_{RM}	0.1 15						mA
Typical Junction Capacitance (Note 2)	C_j	150						pF
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150						℃

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

2. Measured at 1.OMHz and applied reverse voltage of 4.0V DC.

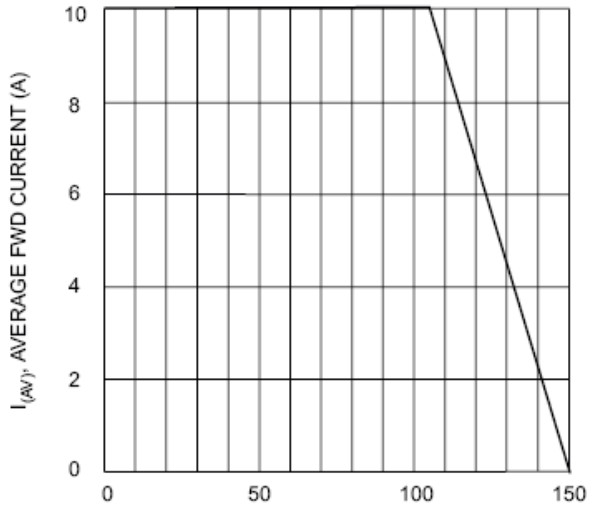

Fig. 1 Forward Current Derating Curve

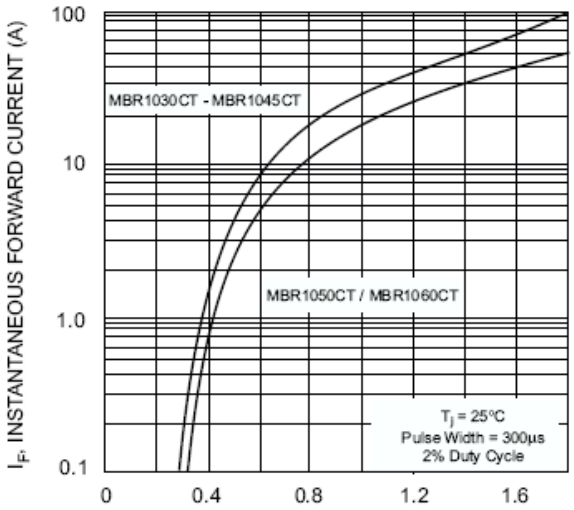

Fig. 2 Typical Forward Characteristics

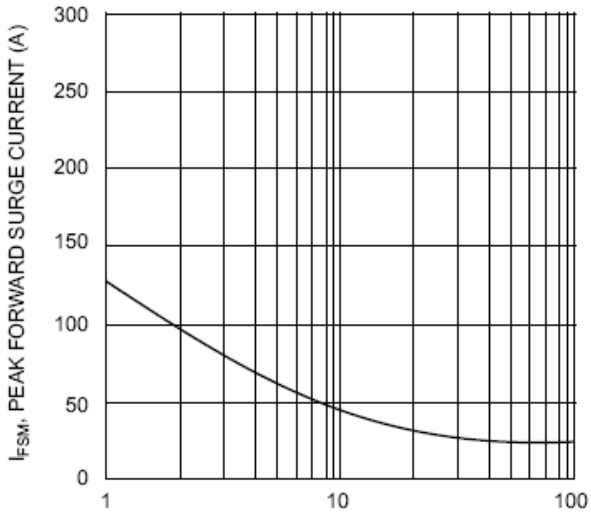

Fig. 3 Max Non-Repetitive Surge Current

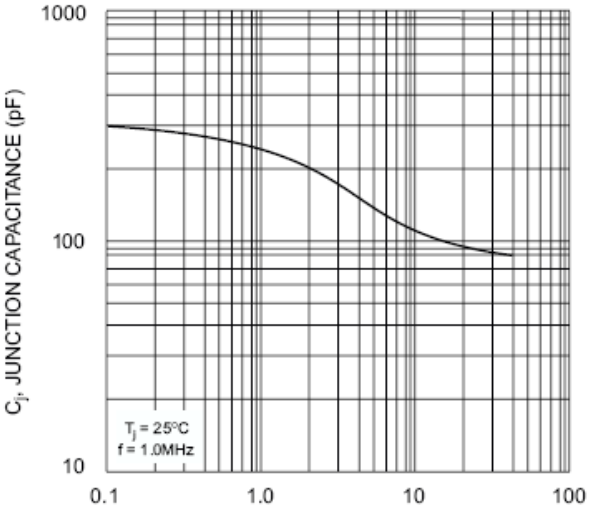

Fig. 4 Typical Junction Capacitance