



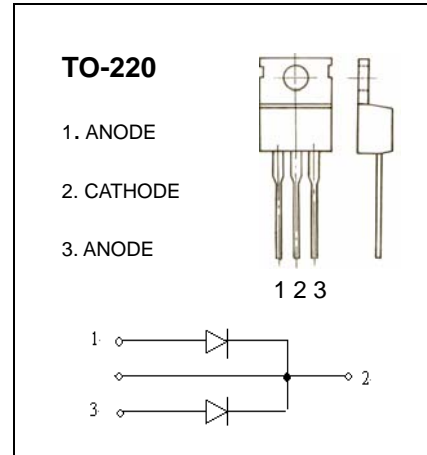
TO-220 Plastic-Encapsulate Transistors

MBR2030CT-MBR2060CT

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	MBR 2030	MBR 2035	MBR 2040	MBR 2045	MBR 2050	MBR 2060	Unit
Peak Repetitive Reverse Voltage	V_{RRM}							
Working Peak Reverse Voltage	V_{RWM}	30	35	40	45	50	60	V
DC Blocking Voltage	V_R							
RMS Reverse Voltage	$V_{R(RMS)}$	21	24.5	28	31.5	35	42	V
Average Rectified Output Current (Note 1) @ T _C =125°C	I_O	20						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150						A
Forward Voltage Drop @ I _F =10A, T _C =25°C @ I _F =10A, T _C =125°C	V_{FM}		0.70 0.57			0.80 0.70		V
Peak Reverse Current @ T _C = 25°C at Rated DC Blocking Voltage @ T _C =125°C	I_{RM}			0.1 15				mA
Typical Junction Capacitance (Note 2)	C_j			650				pF
Operating and Storage Temperature Range	T _j , T _{STG}			-65 to +150				°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

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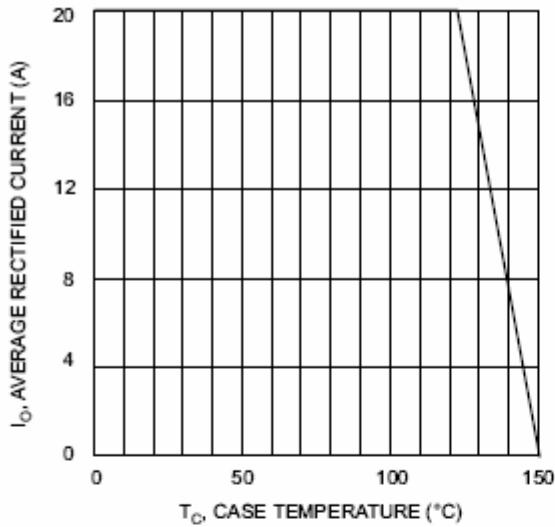


Fig. 1 Forward Current Derating Curve

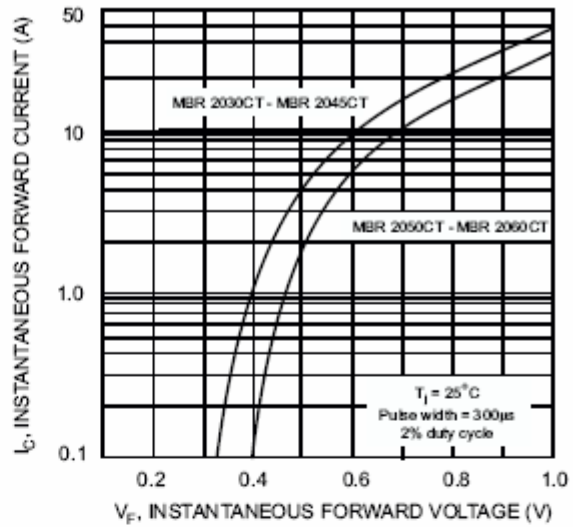


Fig. 2 Typical Forward Characteristics

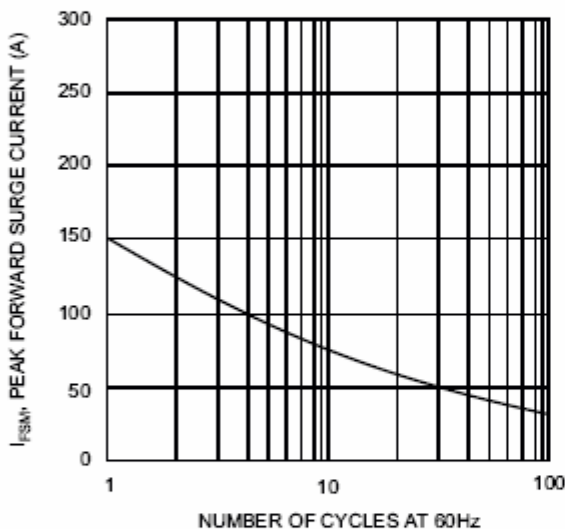


Fig. 3 Max Non-Replicative Surge Current

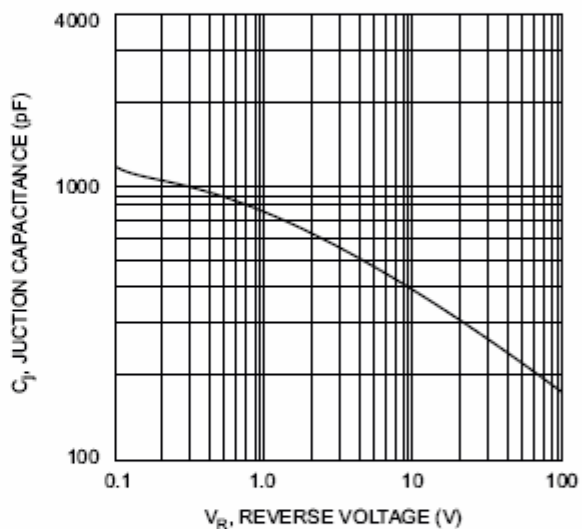


Fig. 4 Typical Junction Capacitance

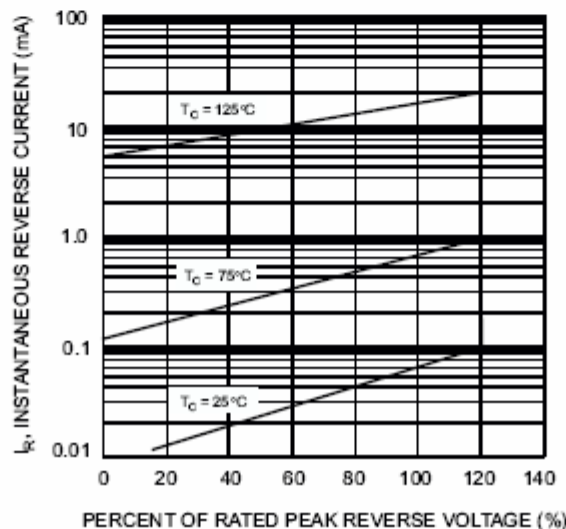


Fig. 5 Typical Reverse Characteristics