



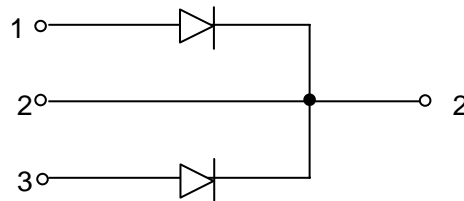
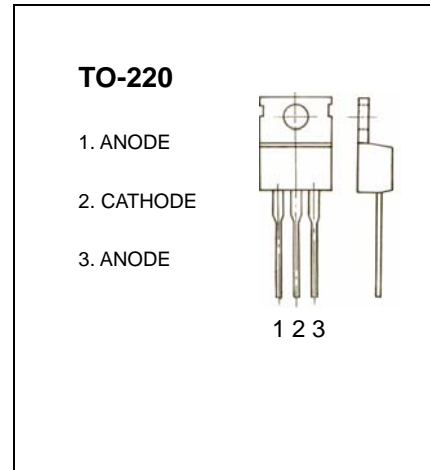
TO-220 Plastic-Encapsulate Transistors

MBR1530CT-MBR1560CT

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

Characteristic	Symbol	MBR 1530CT	MBR 1535CT	MBR 1540CT	MBR 1545CT	MBR 1550CT	MBR 1560CT	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@ T _c =105°C (Note 1)	I _O	15						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 =7.5A, T _C =125°C @ I _F =7.5A, T _C = 25°C	V _{FM}		0.57			0.65		V
			0.70			0.75		
Peak Reverse Current @ T _C = 25°C at Rated DC Blocking Voltage @ T _C =125°C	I _{RM}		0.1			1.0		mA
			15			50		
Typical Junction Capacitance (Note 2)	C _j	300						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

MBR1530CT-MBR1560CT

FIG. 1 - FORWARD CURRENT DERATING CURVE

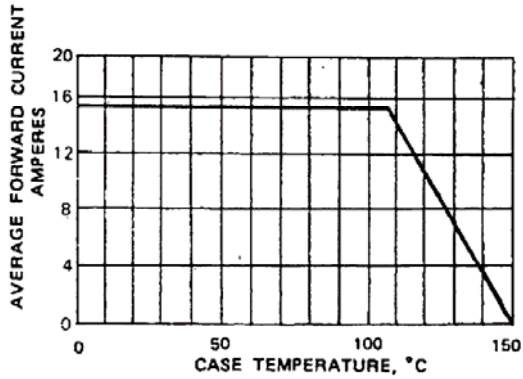


FIG. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

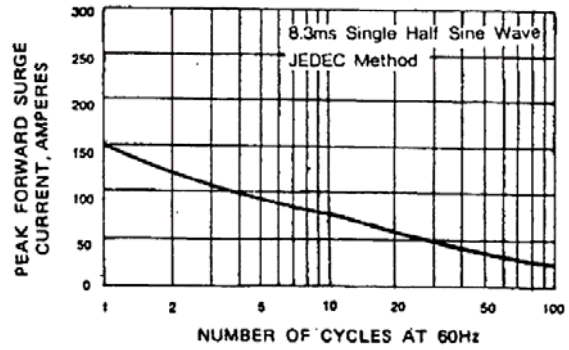


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

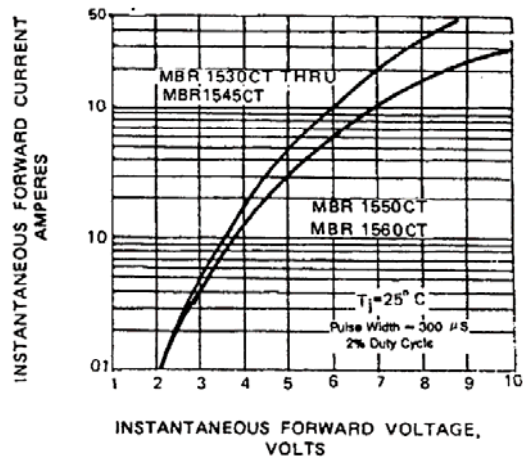


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

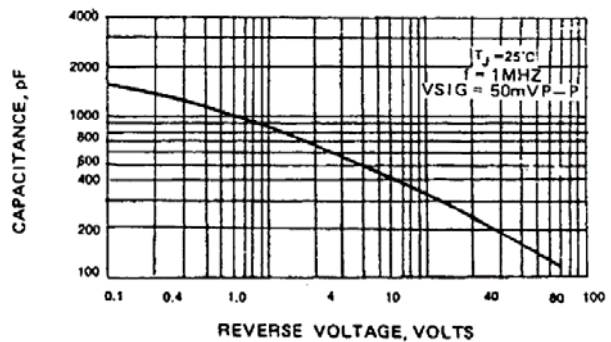


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

