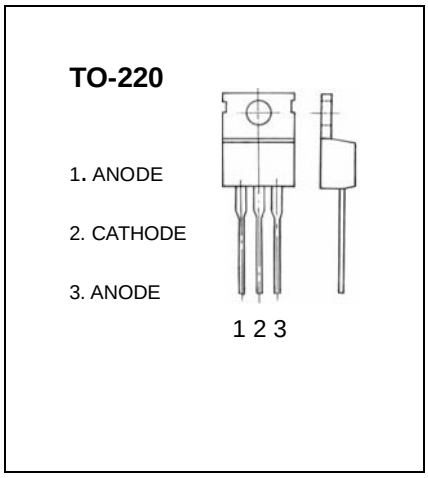
Schottky Barrier Recitifier

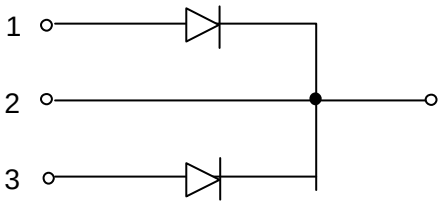
PRODUCT SUMMARY

TO-220 Plastic-Encapsulate Transistors



FEATURES

Scottky Barrier Chip
Guard Ring Die Construction for Transient Protection
Low Power Loss, High Efficiency
Very low forward voltage drop
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



Pb-free; RoHS-compliant

ELECTRICAL CHARACTERISTICS

(Tamb = 25°C 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
PMS 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℃** **@ I_F=10A, T_C= 25℃**	V_{FM}	0.57 0.70 0.84				0.70 0.80 0.95		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.

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