

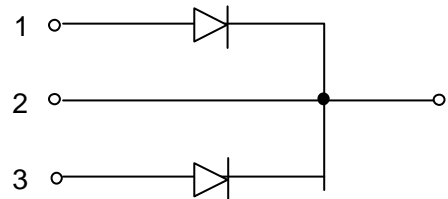
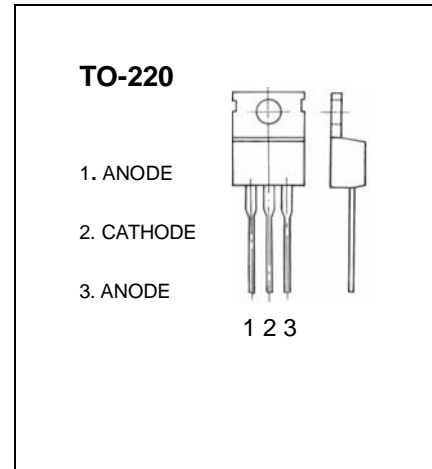
Schottky Barrier Rectifier

PRODUCT SUMMARY

TO-220 Plastic-Encapsulate Transistors

FEATURES

Schottky 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

($T_{amb} = 25^{\circ}\text{C}$ unless otherwise specified)

Characteristic	Symbol	MBR 1030CT	MBR 1035CT	MBR 1040CT	MBR 1045CT	MBR 1050CT	MBR 1060CT	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							
PMS Reverse Voltage	$V_{R(RMS)}$	21	24.5	28	31.5	35	42	V
Average Rectified Output Current (Note 1) @ $T_C=105^{\circ}\text{C}$	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 @ $t \leq 2.0\mu\text{s}$	I_{RRM}	1.0						A
Forward Voltage Drop @ $I_F=5.0\text{A}, T_C=125^{\circ}\text{C}$ @ $I_F=5.0\text{A}, T_C=25^{\circ}\text{C}$ @ $I_F=10\text{A}, T_C=25^{\circ}\text{C}$	V_{FM}		0.57 0.70 0.84			0.70 0.80 0.95		V
Peak Reverse Current @ $T_C=25^{\circ}\text{C}$ at Rated DC Blocking Voltage @ $T_C=125^{\circ}\text{C}$	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				$^{\circ}\text{C}$

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

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

Schottky Barrier Rectifier

Information furnished by Silicon Standard Corporation is believed to be accurate and reliable. However, Silicon Standard Corporation makes no guarantee or warranty, expressed or implied, as to the reliability, accuracy, timeliness or completeness of such information and assumes no responsibility for its use, or for infringement of any patent or other intellectual property rights of third parties that may result from its use. Silicon Standard reserves the right to make changes as it deems necessary to any products described herein for any reason, including without limitation enhancement in reliability, functionality or design. No license is granted, whether expressly or by implication, in relation to the use of any products described herein or to the use of any information provided herein, under any patent or other intellectual property rights of Silicon Standard Corporation or any third parties.