

Schottky Barrier Rectifier

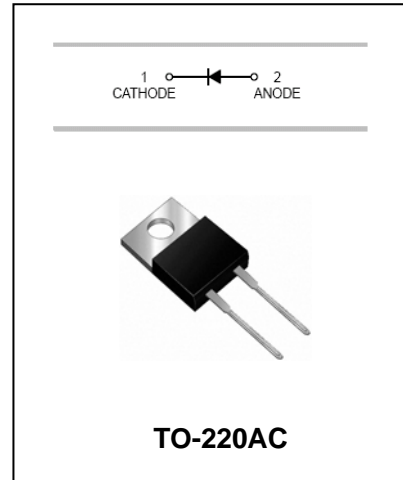
MBR10150-MBR10200

FEATURES

- High Surge Capacity.
- For Use In Low Voltage,High Frequency Inverters,Free Wheeling,And Polarity Protection Applications.
- Metal Silicon Junction,Majority Carrier Conduction.
- High Current Capacity,Low Forward Voltage Drop.
- Guard ring Die Construction for Transient Protection.



Lead-free



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	MBR10150	MBR10200	Unit
V_{RRM}	Recurrent Peak Reverse Voltage	150	200	V
V_{RMS}	RMS Reverse Voltage	105	140	V
V_{DC}	DC Blocking Voltage	150	200	V
$I_{F(AV)}$	Average Forward Total Device Rectified Current	10		A
I_{FSM}	Forward Surge Current 8.3ms Single Half Sine-wave Superimosed on Rated Load	150		A
$R_{\theta JC}$	Thermal Resistance	2.0		°C/W
C_j	Typical Junction Capacitance(Note1)	200		pF
T_j	Operating Junction Temperature Range	-65 to +150		°C
T_{stg}	Storage Temperature Range	-65 to +175		°C

Note:1.Mounted on Heatsink Size of 2 in*3un*0.25in Al-Plate.

Schottky Barrier Rectifier

MBR10150-MBR10200

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MBR10150	MBR10200	UNIT
			MAX		
Reverse Current	I_R	$V_R=V_{RRM}, T_A=25^\circ\text{C}$ $V_R=V_{RRM}, T_A=125^\circ\text{C}$	0.1	50	mA
Forward Voltage	V_F (Note1)	$I_F=10\text{A}$	0.90	0.95	V

Note:1.Pulse test:300µs pulse width,1% duty cycle.

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

FIG.1- FORWARD CURRENT DERATING CURVE

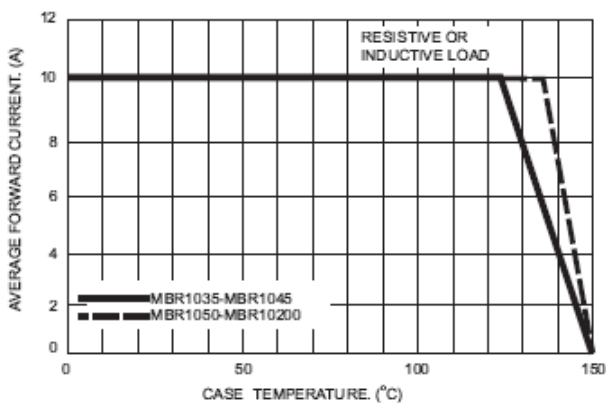


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

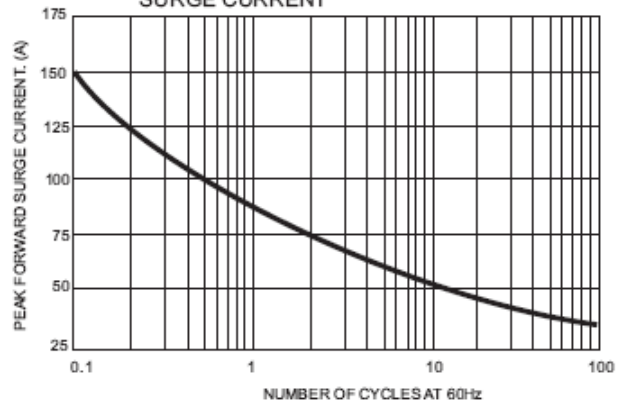


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

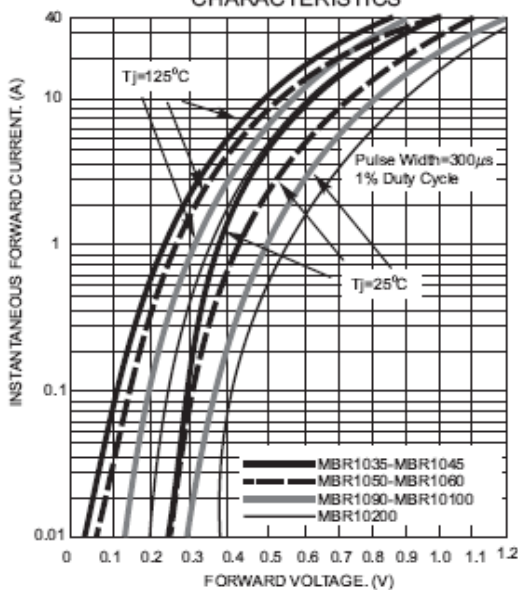
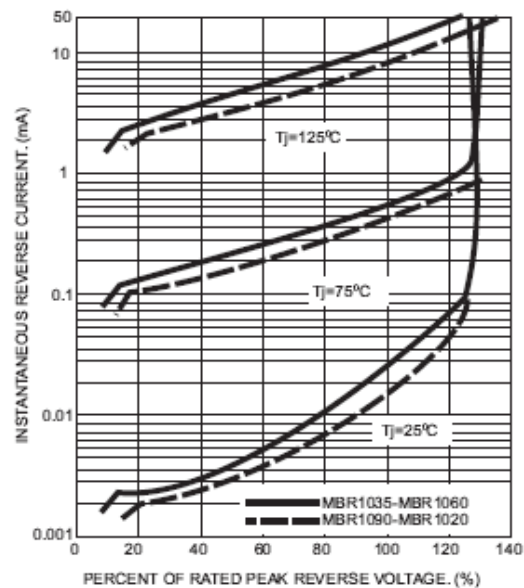


FIG.4- TYPICAL REVERSE CHARACTERISTICS



Schottky Barrier Rectifier

MBR10150-MBR10200

FIG.5- TYPICAL JUNCTION CAPACITANCE

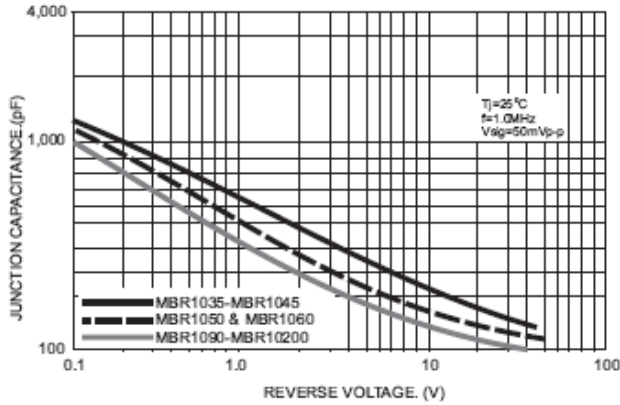
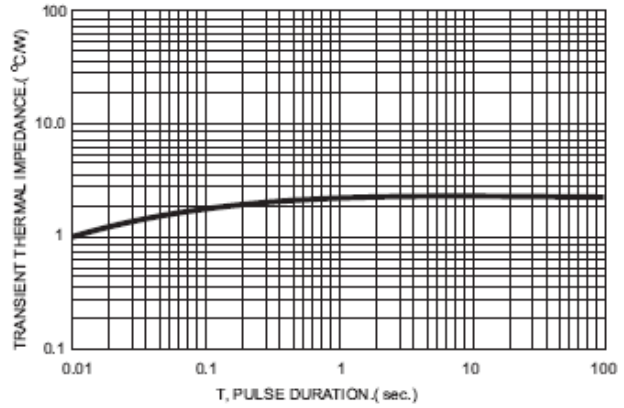


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTIC



PACKAGE OUTLINE

Plastic surface mounted package

TO-220AC

