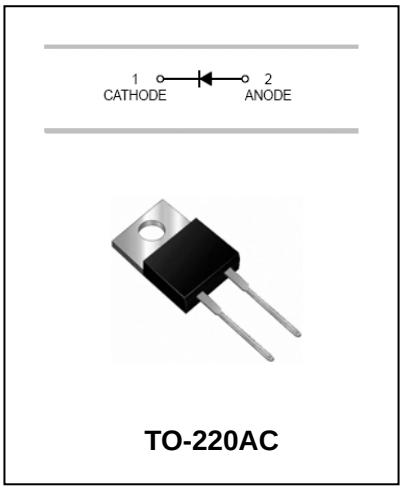
Schottky Barrier Rectifier MBR16150…MBR16200

FEATURES

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

Lead-free



TO-220AC

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	MBR16150	MBR16200	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@T_A=100℃	16		A
I_{FSM}	Forward Surge Current 8.3ms Single Half Sine-wave Superimosed on Rated Load	150		A
$R_{\theta JC}$(Note1)	Thermal Resistance Per Leg	1.5		℃/W
T_j	Operating Junction Temperature Range	-55 to +150		℃
T_{stg}	Storage Temperature Range	-55 to +175		℃

Note:1.Thermal resistance from junction to case.

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ELECTRICAL CHARACTERISTICS@ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MBR16150	MBR16200	UNIT
			MAX		
Reverse Current	I_R	$V_R=V_{RRM}, T_A=25℃$ $V_R=V_{RRM}, T_A=125℃$	0.1 50		mA
Forward Voltage	V_F (Note1)	$I_F=16A, T_A=25℃$	0.90	0.95	V

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

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

FIG.1 -- FORWARD CURRENT DERATING CURVE

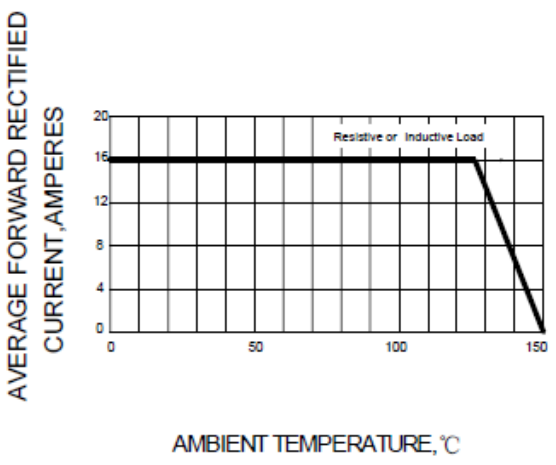

FIG.2 –MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

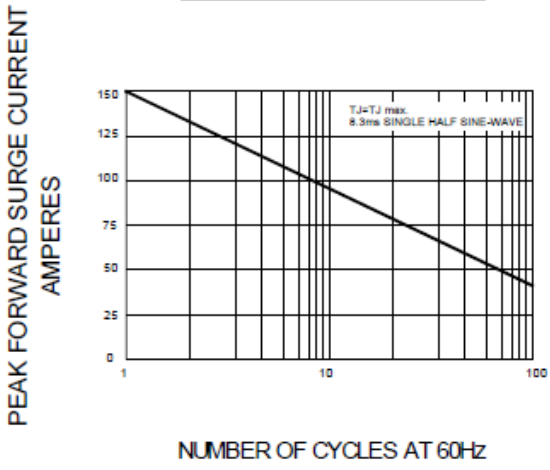

FIG.3 --TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

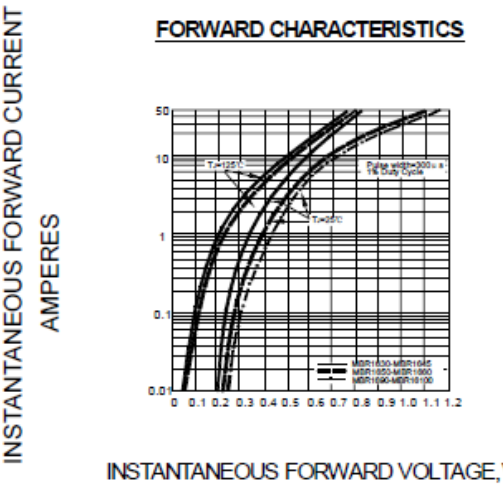

FIG.4--TYPICAL REVERSE CHARACTERISTICS

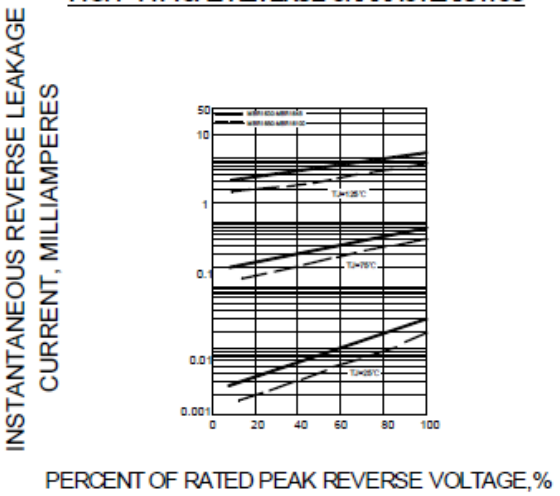

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FIG.5--TYPICAL JUNCTION CAPACITANCE

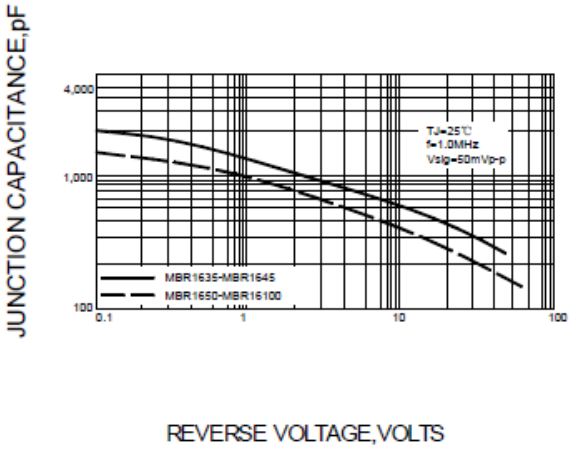
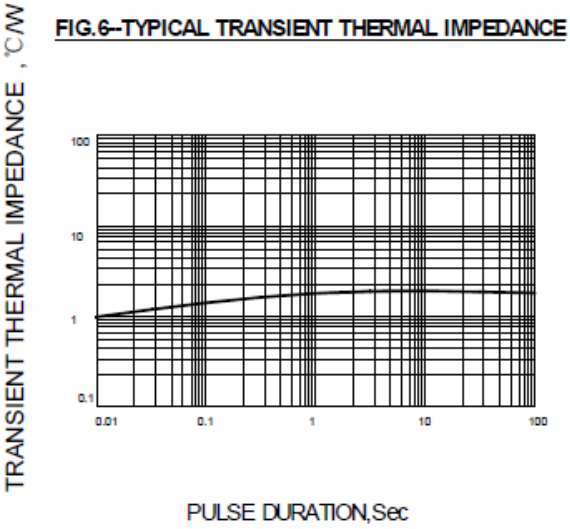
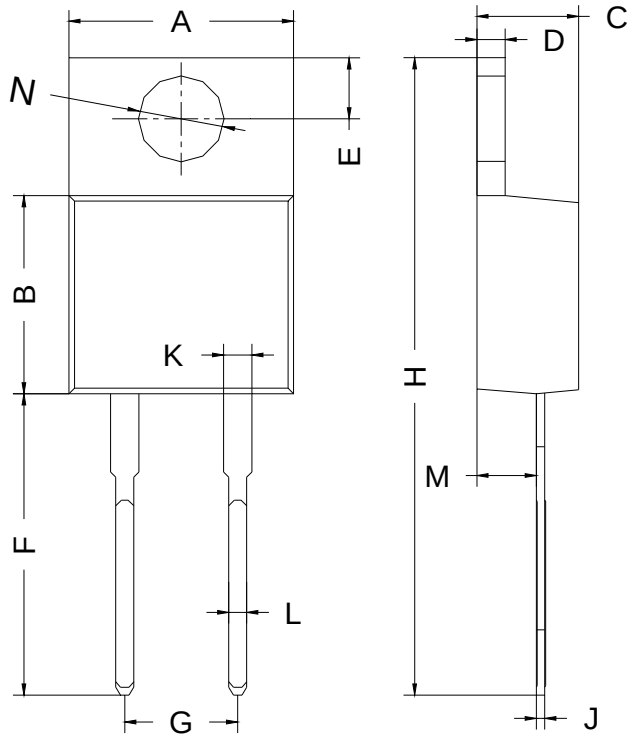


FIG.6--TYPICAL TRANSIENT THERMAL IMPEDANCE



PACKAGE OUTLINE

Plastic surface mounted package TO-220AC



TO-220AC		
Dim	Min	Max
A	9.80	10.30
B	8.70	9.10
C	4.57 Typical	
D	1.27 Typical	
E	2.64	2.84
F	13.14	13.74
G	4.98	5.18
H	28.03	28.83
J	0.38 Typical	
K	1.22	1.32
L	0.71	0.91
M	2.50 Typical	
N	3.86 Typical	
All Dimensions in mm		