

Schottky Barrier Rectifier

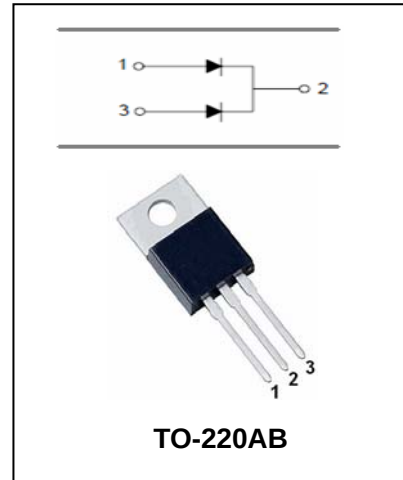
MBR1020CT

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	MBR1020CT	Unit
V_{RRM}	Recurrent Peak Reverse Voltage	20	V
V_{RMS}	RMS Reverse Voltage	14	V
V_{DC}	DC Blocking Voltage	20	V
$I_{F(AV)}$	Average Forward Total Device Rectified Current @ $T_A=100^{\circ}C$	10	A
I_{FSM}	Forward Surge Current 8.3ms Single Half Sine-wave Superimosed on Rated Load	150	A
$R_{\theta JC}$	Thermal Resistance Per Leg	2	$^{\circ}C/W$
T_j	Operating Temperature Range	-50 TO + 150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-50 TO + 175	$^{\circ}C$

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ELECTRICAL CHARACTERISTICS @ $T_A=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	MBR1020CT	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 20	mA
Forward Voltage	V_F	$I_F=5\text{A}, T_A=25^\circ\text{C}$	0.65	V

TYPICAL CHARACTERISTICS @ $T_A=25^\circ\text{C}$ unless otherwise specified

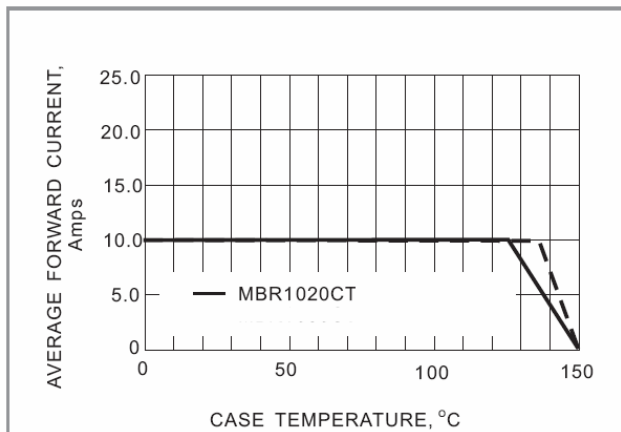


Fig. 1- FORWARD CURRENT DERATING CURVE

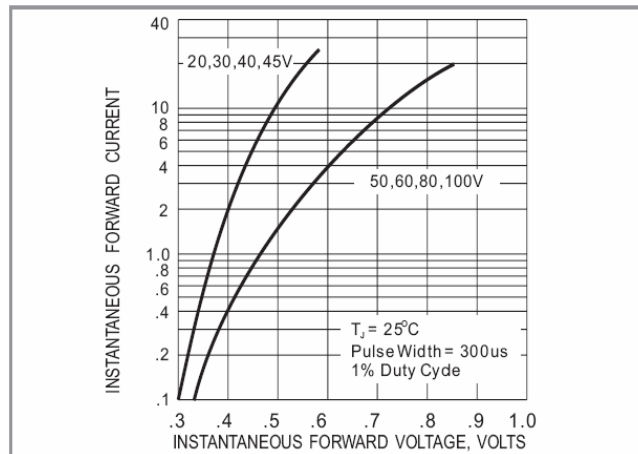


Fig. 2- MAXIMUM NON - REPETITIVE SURGE CURRENT

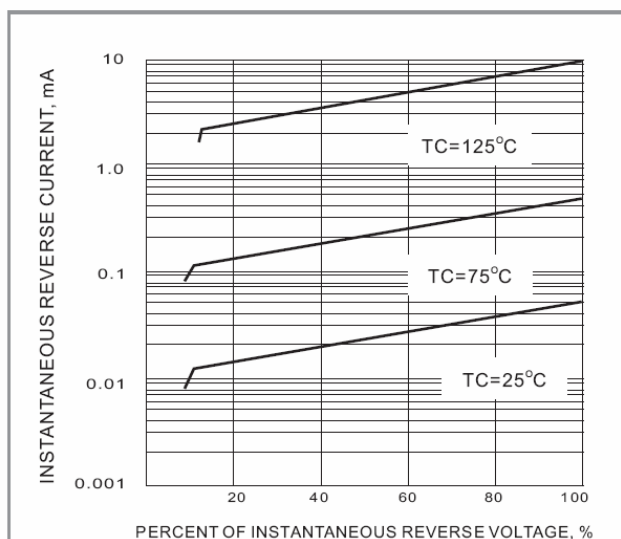


Fig. 3- TYPICAL REVERSE CHARACTERISTICS

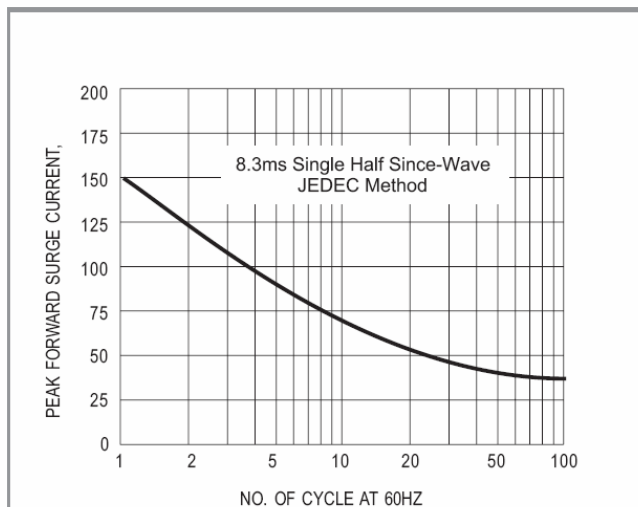


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



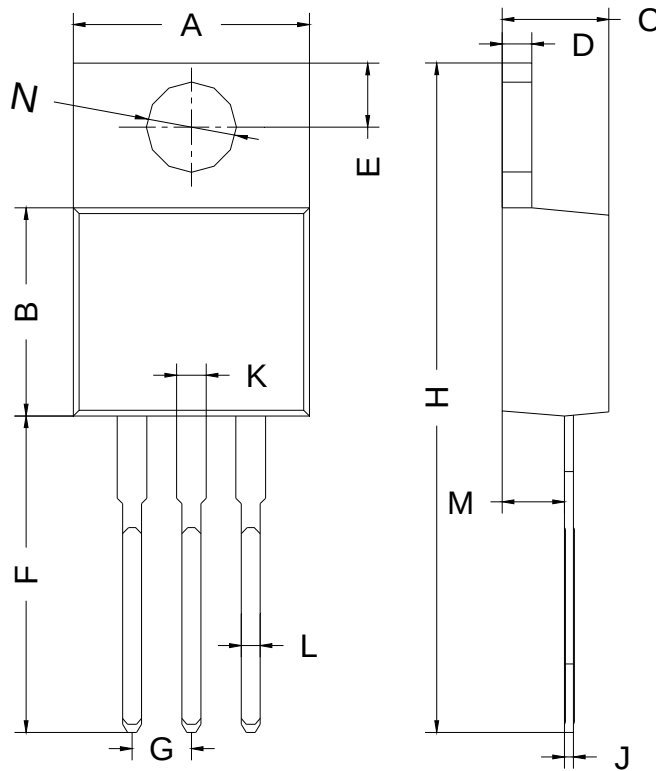
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PACKAGE OUTLINE

Plastic surface mounted package

TO-220AB



TO-220AB		
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	2.44	2.64
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		