



Schottky Barrier Rectifier

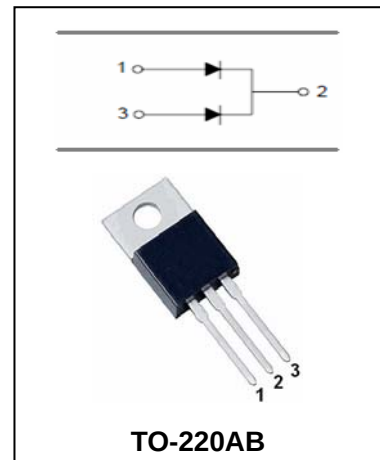
MBR3030CT...MBR30100CT

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 for Over Voltage Protection.



Lead-free



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	MBR 3030 CT	MBR 3035 CT	MBR 3040 CT	MBR 3045 CT	MBR 3050 CT	MBR 3060 CT	MBR 3080 CT	MBR 30100 CT	Unit
V _{RRM}	Repetitive Peak Reverse Voltage	30	35	40	45	50	60	80	100	V
V _{RMS}	RMS Voltage	21	25	28	32	35	42	56	70	V
V _{DC}	DC Blocking Voltage	30	35	40	45	50	60	80	100	V
I _{F(AV)}	Average Forward Rectified Current @T _A =100℃	30								A
I _{FSM}	Peak Forward Surge Current 8.3ms Single Half Sine-wave superimposed on rated load	200								A
R _{θJC}	Thermal Resistance (Note1)	6.8						4.4		℃/W
T _j T _{stg}	Operating Junction and StorageTemperature Range	-55 to +150								℃

Note:1.Thermal resistance from junction to case.



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ELECTRICAL CHARACTERISTICS Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Test conditions	MBR3030CT- MBR3045CT	MBR3050CT- MBR3060CT	MBR3080CT- MBR30100CT	UNIT
			MAX			
Reverse Current	I _R	V _{RM} =V _{RRM} , T _A =25℃ V _{RM} =V _{RRM} , T _A =125℃	0.1 15	0.1 25	0.1 50	mA
Forward Voltage	V _F (Note1)	I _F =15A , T _A =25℃ I _F =15A , T _A =125℃	0.70 0.57	0.80 0.70	0.85 0.65	V

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

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

FIG.1 – PEAK FORWARD SURGE CURRENT

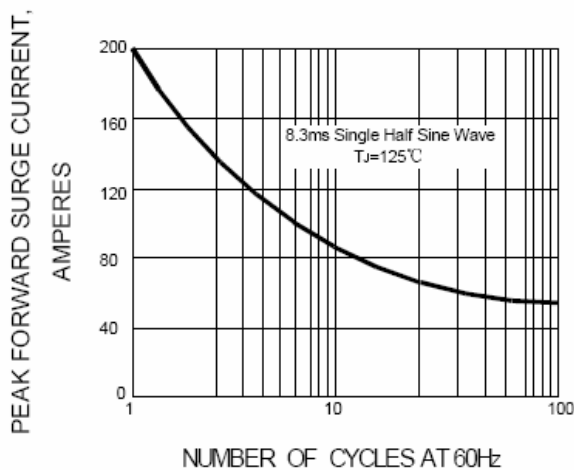


FIG.2 – FORWARD DERATING CURVE

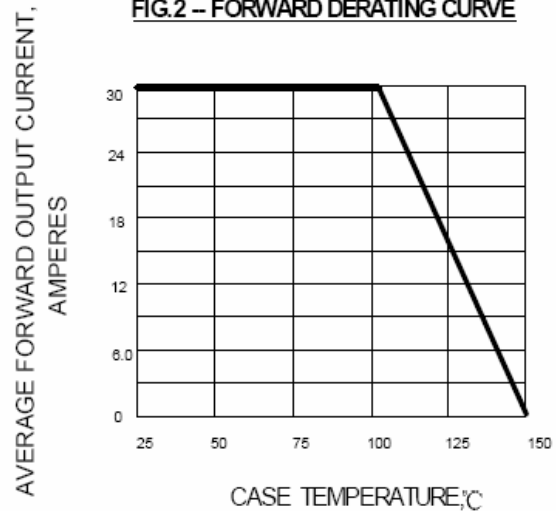


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

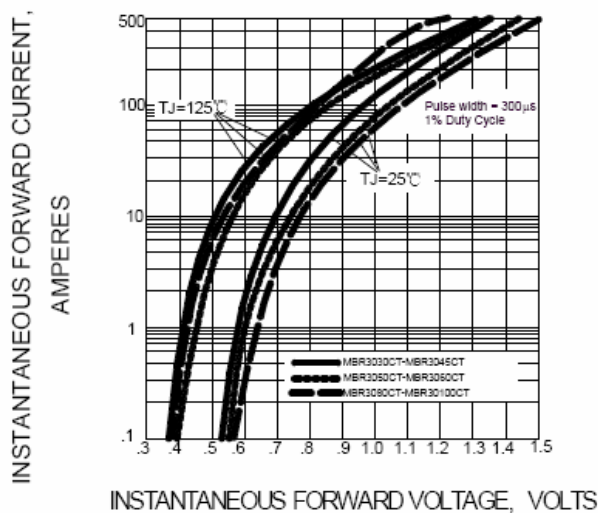
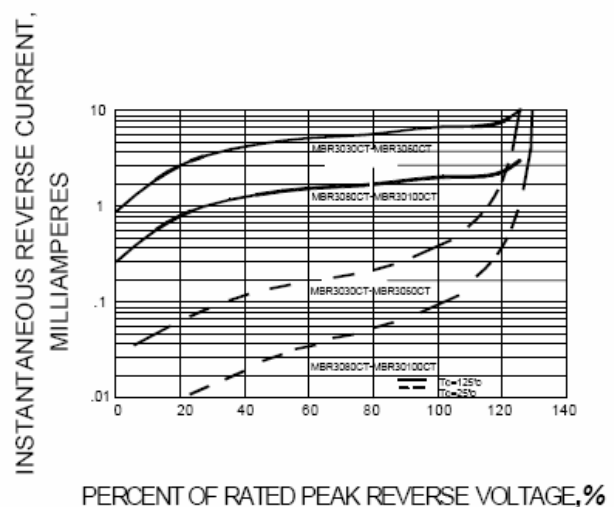


FIG.4 – TYPICAL REVERSE CHARACTERISTIC





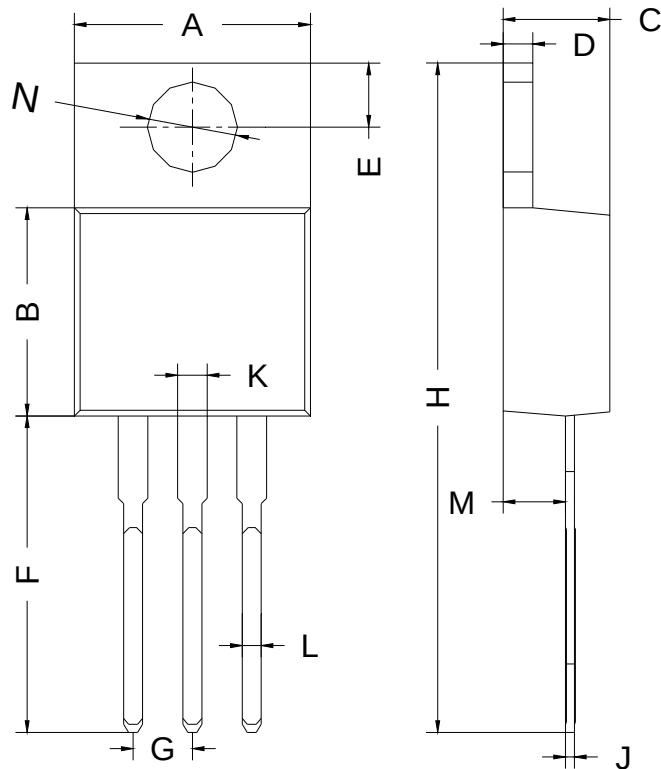
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PACKAGE OUTLINE

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		