

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 70 to 100 Volts
FORWARD CURRENT - 20 Amperes

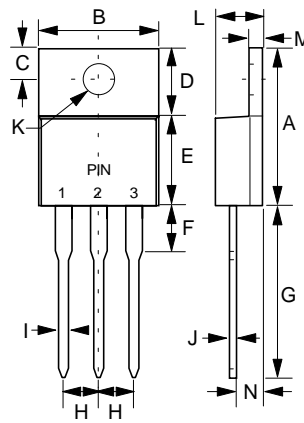
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case : TO-220AB molded plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 grams
- Mounting position : Any

TO-220AB



TO-220AB		
DIM.	MIN.	MAX.
A	14.22	15.88
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	-	6.35
G	12.70	14.73
H	2.29	2.79
I	0.51	1.14
J	0.30	0.64
K	3.53 \varnothing	4.09 \varnothing
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92

All Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	MBR2070CT	MBR2080CT	MBR2090CT	MBR20100CT	UNIT								
Maximum Recurrent Peak Reverse Voltage	VRRM	70	80	90	100	V								
Maximum RMS Voltage	VRMS	49	56	63	70	V								
Maximum DC Blocking Voltage	VDC	70	80	90	100	V								
Maximum Average Forward Rectified Current (See Fig.1) $T_C=120^\circ\text{C}$	I(AV)	20				A								
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	IFSM	150				A								
Voltage Rate of Change (Rated VR)	dv/dt	10000				V/us								
Maximum Forward Voltage (Note 1)	VF	<table border="0"> <tr> <td>IF=10A @ $T_J=125^\circ\text{C}$</td> <td>0.75</td> </tr> <tr> <td>IF=10A @ $T_J=25^\circ\text{C}$</td> <td>0.85</td> </tr> <tr> <td>IF=20A @ $T_J=125^\circ\text{C}$</td> <td>0.85</td> </tr> <tr> <td>IF=20A @ $T_J=25^\circ\text{C}$</td> <td>0.95</td> </tr> </table>				IF=10A @ $T_J=125^\circ\text{C}$	0.75	IF=10A @ $T_J=25^\circ\text{C}$	0.85	IF=20A @ $T_J=125^\circ\text{C}$	0.85	IF=20A @ $T_J=25^\circ\text{C}$	0.95	V
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Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	<table border="0"> <tr> <td>@ $T_J=25^\circ\text{C}$</td> <td>0.1</td> </tr> <tr> <td>@ $T_J=125^\circ\text{C}$</td> <td>100</td> </tr> </table>				@ $T_J=25^\circ\text{C}$	0.1	@ $T_J=125^\circ\text{C}$	100	mA				
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@ $T_J=125^\circ\text{C}$	100													
Typical Thermal Resistance (Note 2)	R θ JC	2.0				°C/W								
Typical Junction Capacitance per element (Note 3)	CJ	250				pF								
Operating Temperature Range	TJ	-55 to +150				°C								
Storage Temperature Range	TSTG	-55 to +175				°C								

- NOTES : 1. 300us Pulse Width, 2% Duty Cycle.
2. Thermal Resistance Junction to Case.
3. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

