

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 70 to 100 Volts
FORWARD CURRENT - 10 Amperes

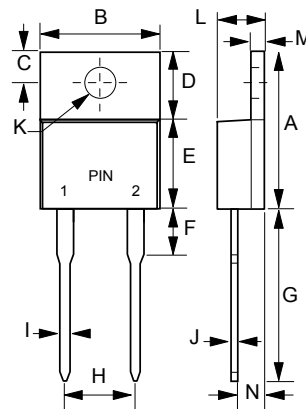
FEATURES

- 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-220AC molded plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 grams
- Mounting position : Any
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)

TO-220AC



TO-220AC		
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	4.83	5.33
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	MBR1070	MBR1080	MBR1090	MBR10100	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) @TC=135°C	IAV	10				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	IFSM	150				A
Voltage Rate of Change (Rated VR)	dv/dt	10000				V/us
Maximum Forward Voltage (Note 1) IF=10A @ TJ=25°C IF=10A @ TJ=125°C IF=20A @ TJ=125°C	VF	0.85 0.75 0.80				V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=125°C	IR	0.1 100				mA
Typical Thermal Resistance (Note 2)	R θ JC	2.0				°C/W
Typical Junction Capacitance (Note 3)	CJ	1100				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.

REV. 1, Aug-2007, KTHA12

