Zibo Seno Electronic Engineering Co., Ltd.

淄博圣诺

MBR1540 – MBR15200

15.0A SCHOTTKY BARRIER DIODE

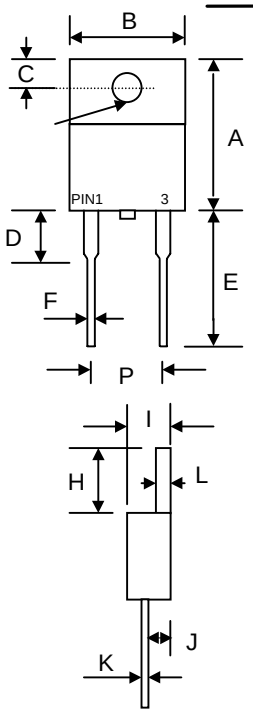
Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 280A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

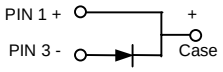
Mechanical Data

- Case: TO-220AC, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version**

TO-220AC



TO-220AC		
Dim	**Min**	**Max**
A	13.90	15.90
B	9.80	10.70
C	2.54	3.43
D	3.56	4.56
E	12.70	14.73
F	0.51	1.14
G	3.55 Ø	4.09 Ø
H	5.75	6.85
I	3.56	4.83
J	2.03	2.92
K	0.30	0.64
L	1.10	1.40
P	4.80	5.35
All Dimensions in mm		



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	MBR 1540	MBR 1545	MBR 1550	MBR 1560	MBR 1580	MBR 15100	MBR 15150	MBR 15200	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	45	50	60	80	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	31	35	42	56	70	105	140	V
Average Rectified Output Current @T_L =75°C (Note 1)	I_O	15.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	280								A
Forward Voltage @I_F = 15A	V_{FM}	0.70		0.80		0.85		0.92		V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.1 20								mA
Typical Junction Capacitance (Note 2)	C_j	350		280		200				pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	3.5				2.0				°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150								°C

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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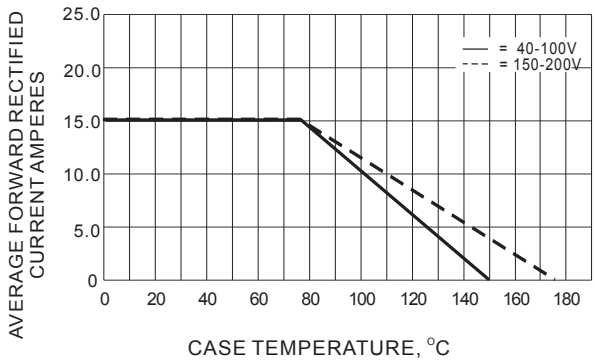


Fig.1- FORWARD CURRENT DERATING CURVE

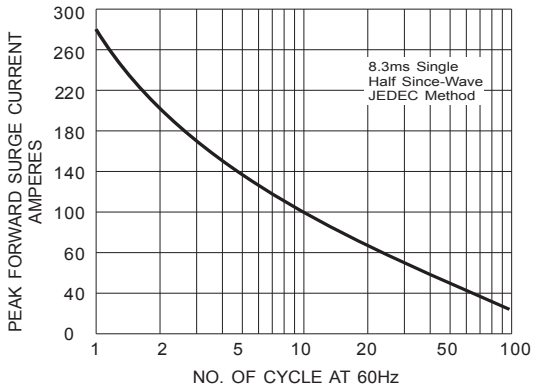


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

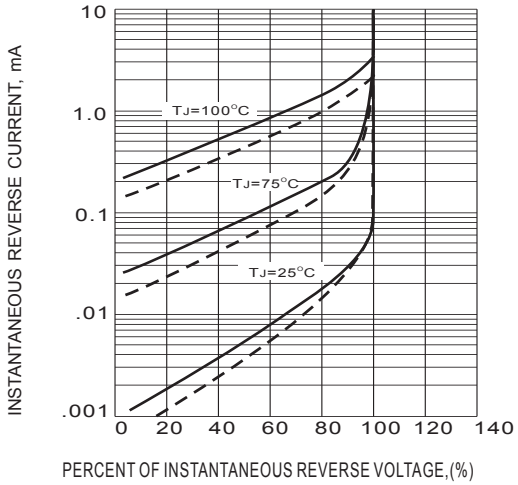


Fig.3- TYPICAL REVERSE CHARACTERISTICS

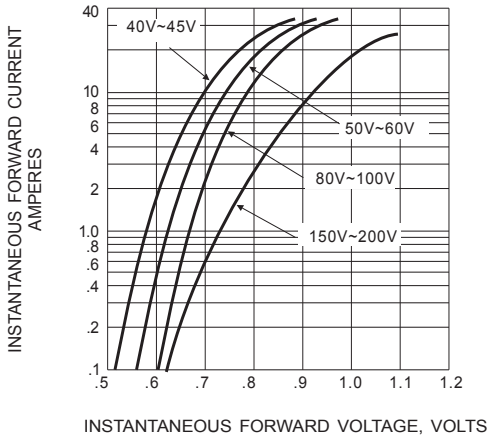


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

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