Zibo Seno Electronic Engineering Co., Ltd.

淄博圣诺

MBR1640CT – MBR16200CT

16.0A SCHOTTKY BARRIER DIODE

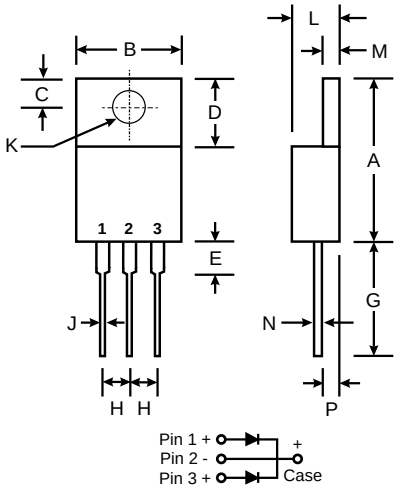
Features

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

Mechanical Data

- Case: TO-220AB, 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-220AB



TO-220AB		
Dim	**Min**	**Max**
A	13.90	15.90
B	9.60	10.70
C	2.54	3.43
D	5.75	6.85
E	3.56	4.56
G	12.70	14.73
H	2.29	2.79
J	0.51	1.14
K	3.53∅	4.09∅
L	3.56	4.83
M	1.10	1.40
N	0.30	0.64
P	2.03	2.92
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 1640 CT	MBR 1645 CT	MBR 1650 CT	MBR 1660 CT	MBR 16100 CT	MBR 16150 CT	MBR 16200 CT	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	45	50	60	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	31	35	42	70	105	140	V
Average Rectified Output Current @T_L = 75° C (Note 1)	I_O	16.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120							A
Forward Voltage @I_F = 8A	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					-55 to +175		°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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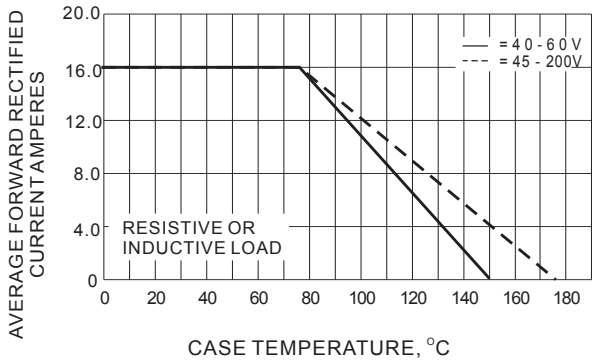

Fig.1- FORWARD CURRENT DERATING CURVE

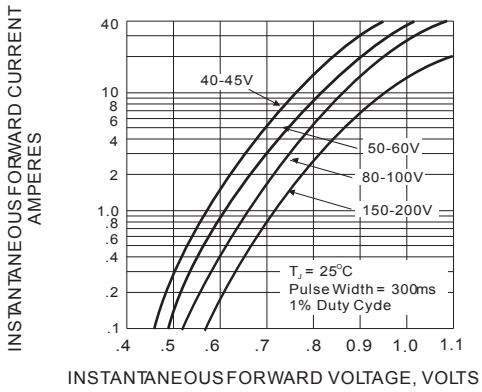

Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

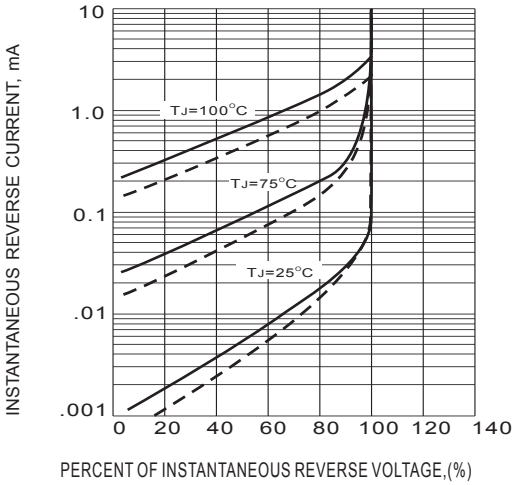

Fig.3- TYPICAL REVERSE CHARACTERISTICS

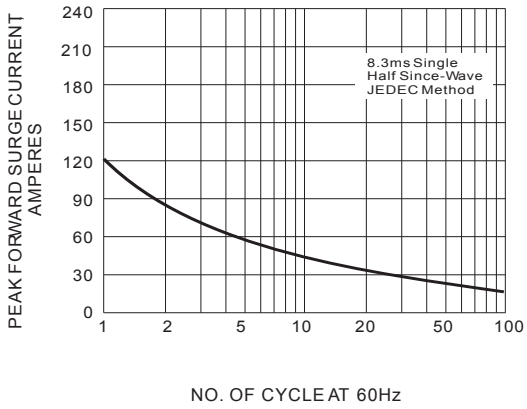

Fig.4- MAXIMUM NON - REPETITIVE SURGE CURRENT