

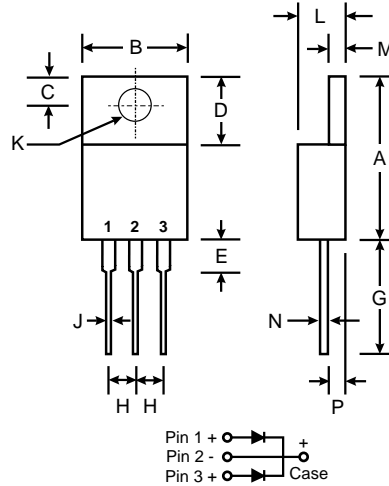
Features

- 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 \varnothing	4.09 \varnothing
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 2040 CT	MBR 2045 CT	MBR 2050 CT	MBR 2060 CT	MBR 20100 CT	MBR 20150 CT	MBR 20200 CT	Unit	
Peak Repetitive Reverse Voltage	V _{RRM}									
Working Peak Reverse Voltage	V _{RWM}	40	45	50	60	100	150	200	V	
DC Blocking Voltage	V _R									
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	20.0							A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150							A	
Forward Voltage @I _F = 10A	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 _{θJA}	3.0							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.

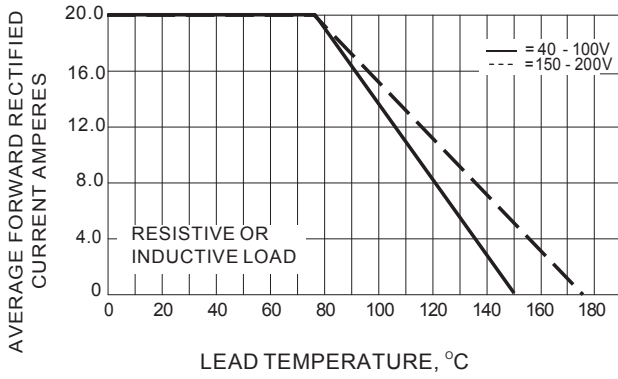


Fig.1- FORWARD CURRENT DERATING CURVE

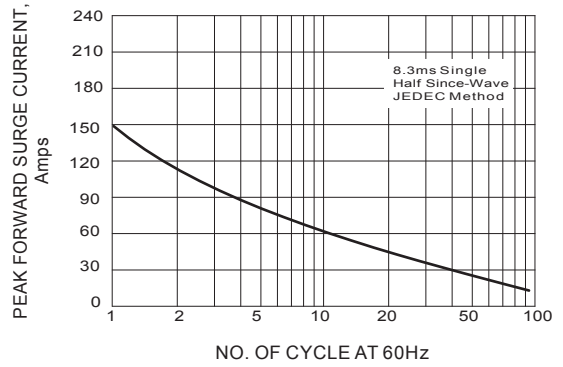


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

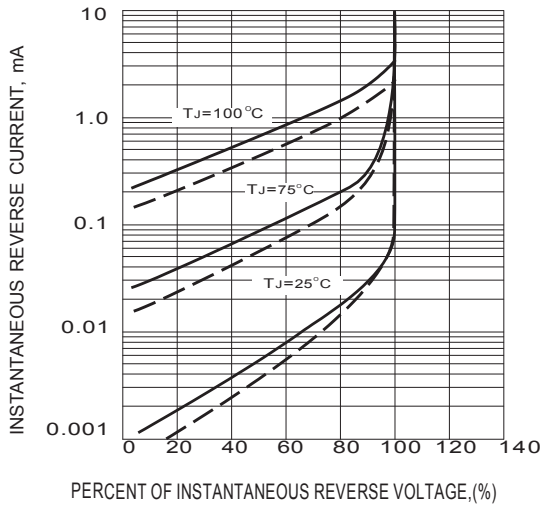


Fig.3- TYPICAL REVERSE CHARACTERISTICS

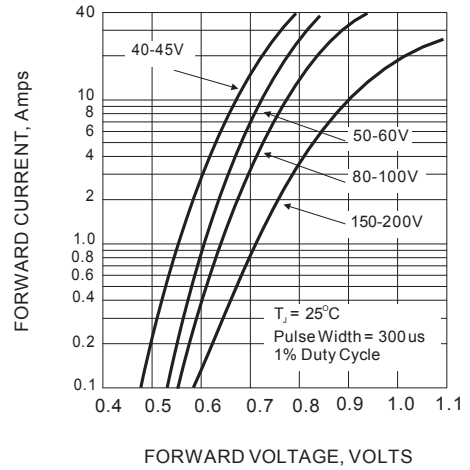


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS