

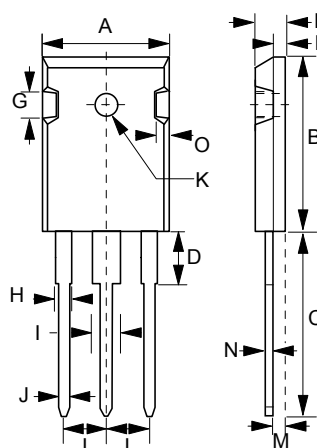
Features

- 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-247AD/TO-3P, 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-247AD/TO-3P



TO-3P		
DIM.	MIN.	MAX.
A	15.75	16.25
B	21.20	21.80
C	19.20	20.10
D	3.50	4.50
E	1.88	2.10
F	4.60	5.10
G	-	4.40
H	1.90	2.30
I	2.90	3.30
J	1.00	1.40
K	2.90	3.30
L	5.30	5.60
M	2.10	2.40
N	0.50	0.75
O	1.90	2.20

All Dimensions in millimeter

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 4040 PT	MBR 4045 PT	MBR 4050 PT	MBR 4060 PT	MBR 40100 PT	MBR 40150 PT	MBR 40200 PT	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	40.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	350							A
Forward Voltage @I _F = 20A	V _{FM}	0.70		0.75		0.80	0.90		V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}	0.1 20					0.05 10		mA
Typical Junction Capacitance (Note 2)	C _j	350		280		200			pF
Typical Thermal Resistance (Note 1)	R θ 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.

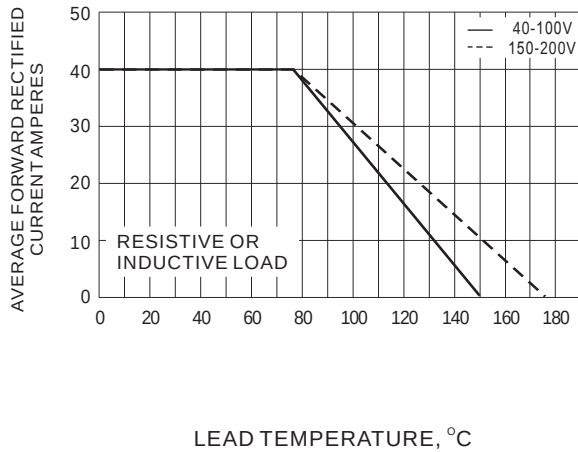


Fig.1- FORWARD CURRENT DERATING CURVE

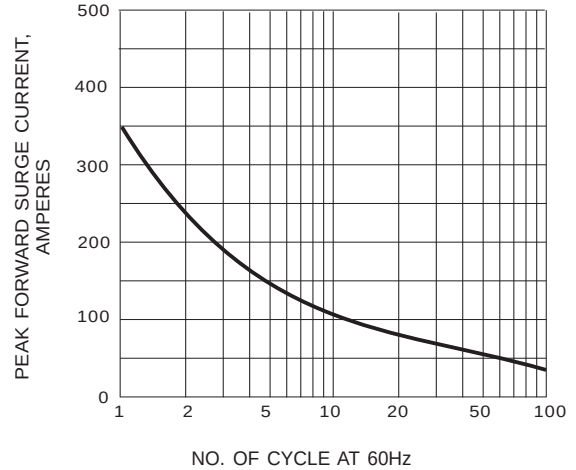


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

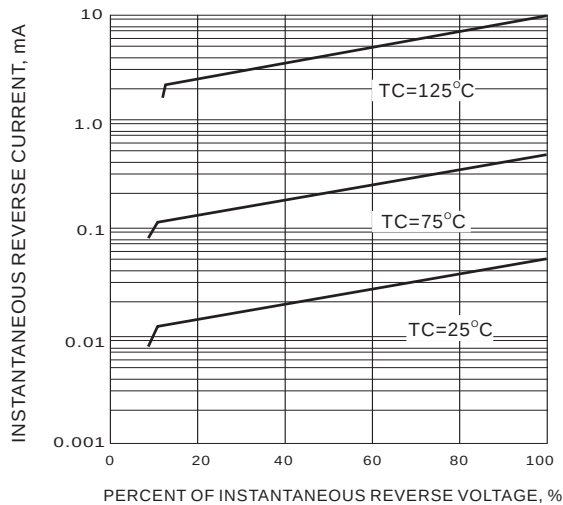


Fig.3- TYPICAL REVERSE CHARACTERISTIC

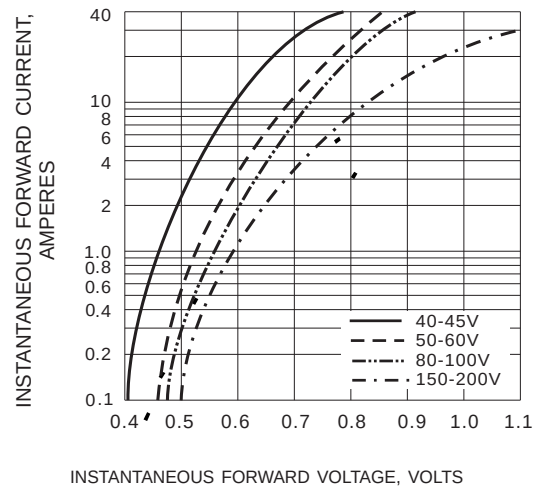


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC