

60.A LOW VF SCHOTTKY BARRIER DIODE

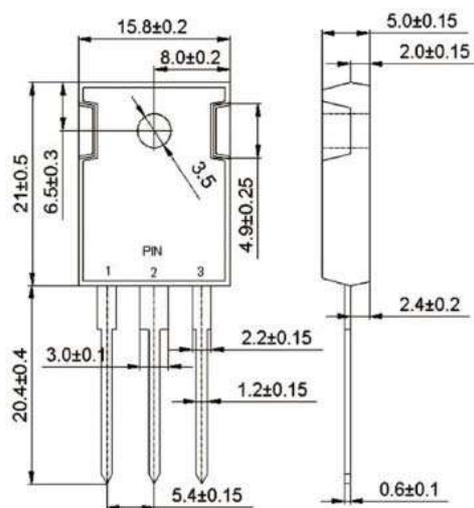
Features

- 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-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



Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

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

Characteristic	Symbol	MBR 6040 LPT	MBR 6045 LPT	MBR 6050 LPT	MBR 6060 LPT	MBR 60100 LPT	MBR 60150 LPT	MBR 60200 LPT	Units
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 @ $T_L = 105^{\circ}\text{C}$ (Note 1)	I_O	60.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	500							A
Forward Voltage @ $I_F = 30\text{A}$	V_{FM}	0.48		0.60		0.75		0.85	V
Peak Reverse Current @ $T_A = 25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^{\circ}\text{C}$	I_{RM}			0.1			0.05	10	mA
Typical Junction Capacitance (Note 2)	C_j	350		280			200		pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	3.5				2.0			$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150					-55 to +175		$^{\circ}\text{C}$

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.

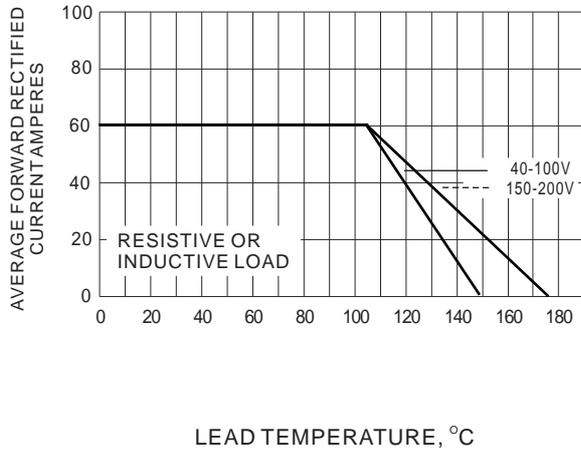


Fig.1- FORWARD CURRENT DERATING CURVE

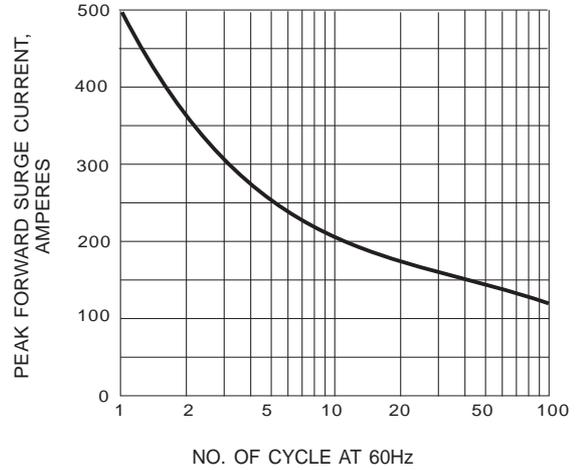


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

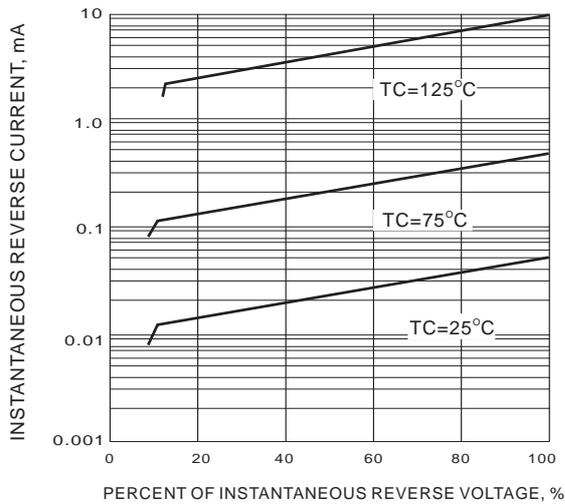


Fig.3- TYPICAL REVERSE CHARACTERISTIC

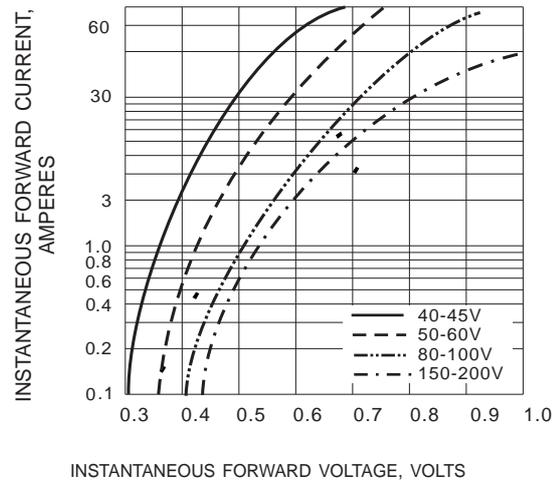


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC