

# MBRS240LT3G

# SCHOTTKY BARRIER RECTIFIER

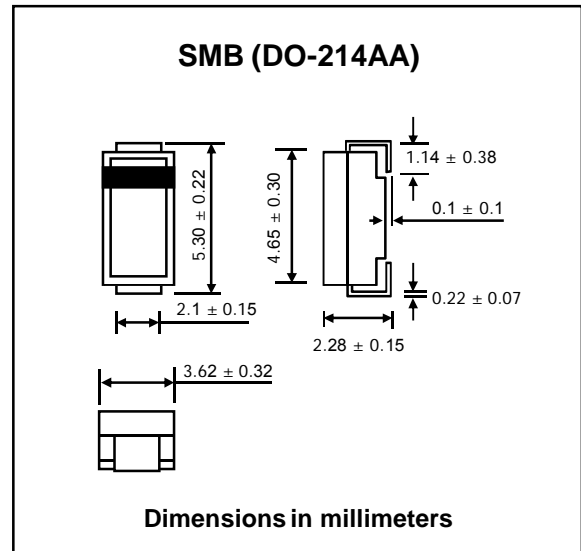
**PRV : 40 Volts**  
**Io : 2.0 Ampere**

### FEATURES :

- \* Small Compact Surface Mountable Package
- \* Highly Stable Oxide Passivated Junction
- \* Guard-Ring for Overvoltage Protection
- \* Low Forward Voltage Drop
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : SMB Molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.117 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

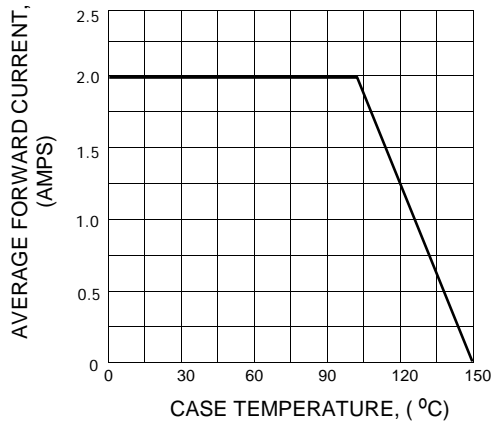
RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Reverse Voltage	$V_{RRM}$	40	V
Maximum Working Peak Reverse Voltage	$V_{RWM}$	40	V
Maximum DC Blocking Voltage	$V_{DC}$	40	V
Maximum Average Rectified Forward Current ( At Rated $V_R$ , $T_C = 100\text{ }^\circ\text{C}$ )	$I_{F(AV)}$	2.0	A
Non-repetitive Peak Surge Current (Surge applied at rated load conditions half wave, single phase, 60Hz)	$I_{FSM}$	25	A
Maximum Instantaneous Forward Voltage (Note 1) ( $I_F = 2.0\text{ A}$ , $T_J = 25\text{ }^\circ\text{C}$ ) ( $I_F = 2.0\text{ A}$ , $T_J = 125\text{ }^\circ\text{C}$ )	$V_F$	0.430 0.375	V
Maximum Instantaneous Reverse Current (Note1) ( Rate dc Voltage, $T_J = 25\text{ }^\circ\text{C}$ ) ( Rate dc Voltage, $T_J = 100\text{ }^\circ\text{C}$ )	$I_R$	2.0 60	mA
Thermal Resistance - Junction to Lead (Note2)	$R_{\theta JL}$	18	$^\circ\text{C/W}$
Thermal Resistance - Junction to Lead (Note3)	$R_{\theta JA}$	78	$^\circ\text{C/W}$
Storage/Operating Case Temperature	$T_{stg}, T_C$	- 55 to +150	$^\circ\text{C}$
Operating Junction Temperature	$T_J$	- 55 to +125	$^\circ\text{C}$

### Notes:

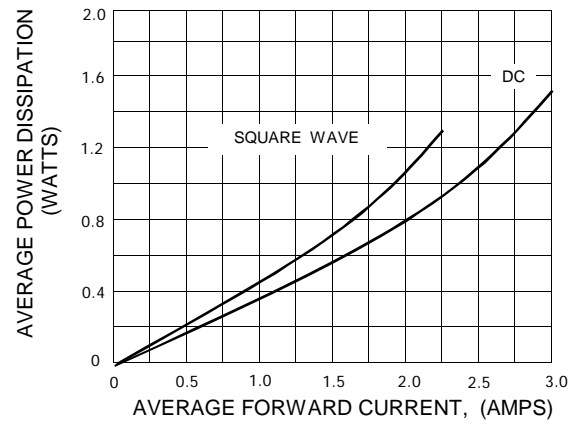
- (1) Pulse Test : Pulse Width  $\leq 250\text{ }\mu\text{s}$ , Duty Cycle  $\leq 2\%$ .
- (2) Mounted with minimum recommended pad size, PC Board FR4.
- (3) 1 inch square pad size ( 1 x 0.5 inch for each lead ) on FR4 board.

**RATING AND CHARACTERISTIC CURVES ( MBR240LT3G )**

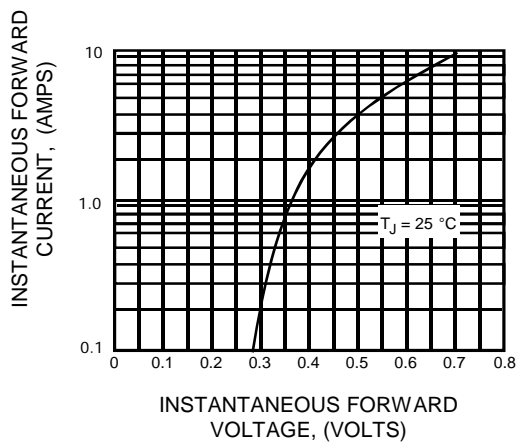
**FIG.1 - CURRENT DERATING**



**FIG.2 - FORWARD POWER DISSIPATION**



**FIG.3 - TYPICAL FORWARD VOLTAGE**



**FIG.4 - TYPICAL REVERSE CURRENT**

