

MBRS240LT3G

PRV : 40 Volts
Io : 2.0 Ampere

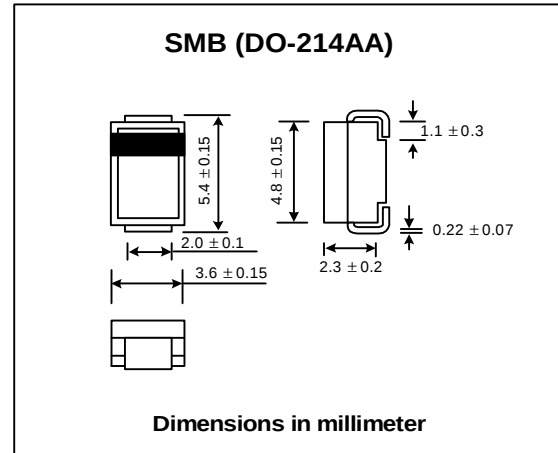
FEATURES :

- * 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-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.117 gram

SCHOTTKY BARRIER RECTIFIER



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 (MBRS240LT3G)

FIG.1 - CURRENT DERATING

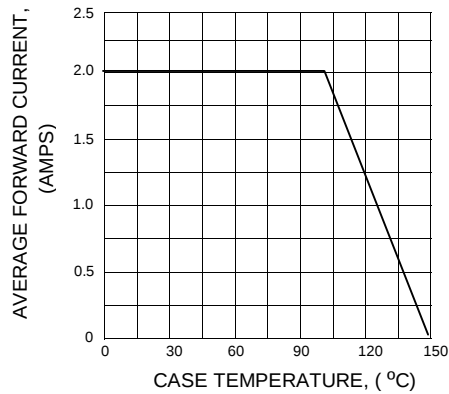


FIG.2 - FORWARD POWER DISSIPATION

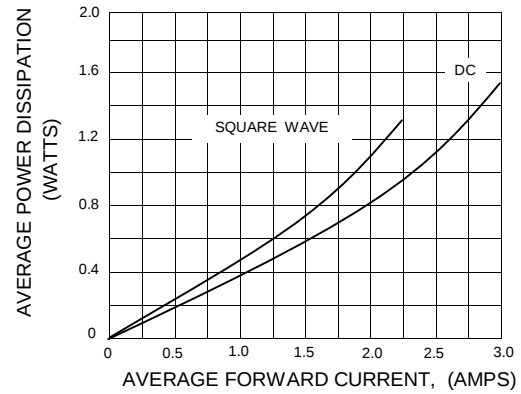


FIG.3 - TYPICAL FORWARD VOLTAGE

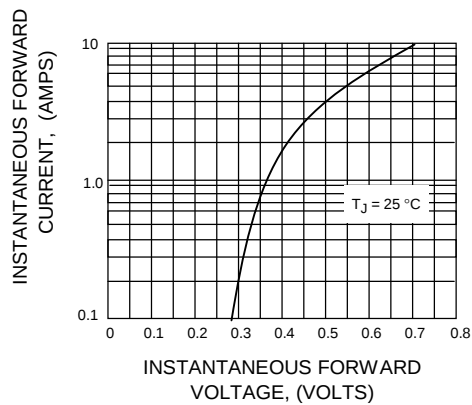


FIG.4 - TYPICAL REVERSE CURRENT

