

MBRS3200

PRV : 200 Volts
Io : 3.0 Amperes

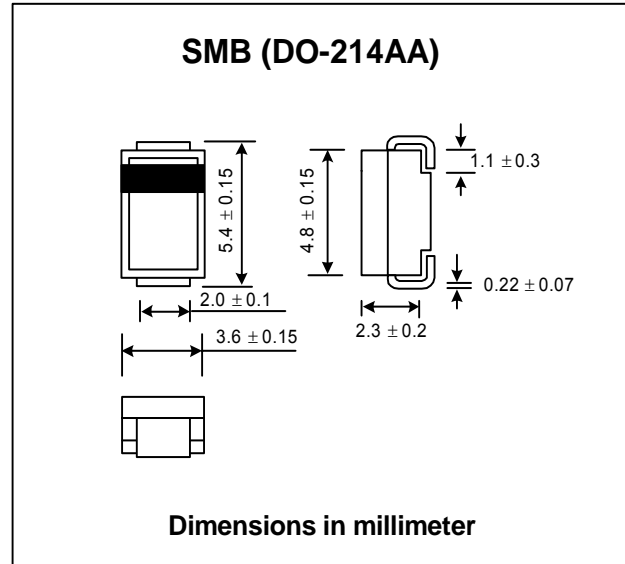
FEATURES :

- * Small Compact Surface Mountable Package
- * Rectangular Package for Automated Handling
- * Highly Stable Oxide Passivated Junction
- * Very High Blocking Voltage - 200 V
- * 150 °C Operating Junction Temperature
- * Guard-Ring for Stress Protection
- * 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 : 0.108 gram

SURFACE MOUNT 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}	200	V
Maximum Working Peak Reverse Voltage	V_{RWM}	200	V
Maximum DC Blocking Voltage	V_R	200	V
Maximum Average Rectified Forward Current ($T_L = 120\text{ }^\circ\text{C}$)	$I_{F(AV)}$	3.0	A
Maximum Non-Repetitive Peak Surge Current (Surge applied at rated load conditions half wave, single phase ,60 Hz)	I_{FSM}	100	A
Maximum Instantaneous Forward Voltage (Note 1) ($I_F = 3.0\text{ A}$, $T_J = 25\text{ }^\circ\text{C}$) ($I_F = 3.0\text{ A}$, $T_J = 150\text{ }^\circ\text{C}$)	V_F	0.84 0.59	V
Maximum Instantaneous Reverse Current (Note1) (Rated dc Voltage, $T_J = 25\text{ }^\circ\text{C}$) (Rated dc Voltage, $T_J = 150\text{ }^\circ\text{C}$)	I_R $I_{R(H)}$	1.0 5.0	mA
Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	62	°C/W
Thermal Resistance Junction to Lead (Note 3)	$R_{\theta JL}$	13	°C/W
Operating Junction Temperature	T_J	- 65 to +150	°C

- Notes:** (1) Pulse Test : Pulse Width = 300µs Duty Cycle ≤ 2%
 (2) 1 inch square pad size(1 x 0.5 inch) for each lead on FR4 board.
 (3) Minimum pad size(0.108 x 0.085 inch) for each lead on FR4 board.

RATING AND CHARACTERISTIC CURVES (MBR3200)

FIG.1 - CURRENT DERATING (LEAD)

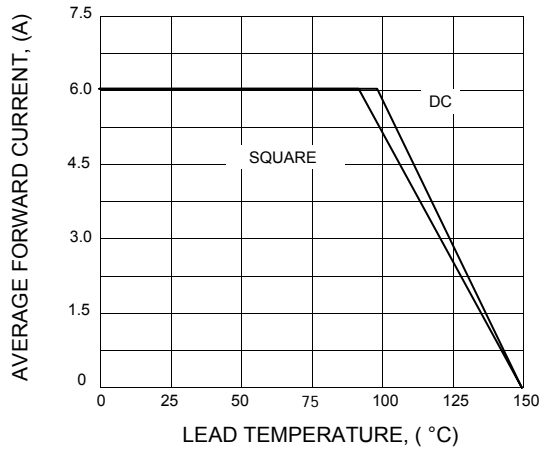


FIG.2 - FORWARD POWER DISSIPATION

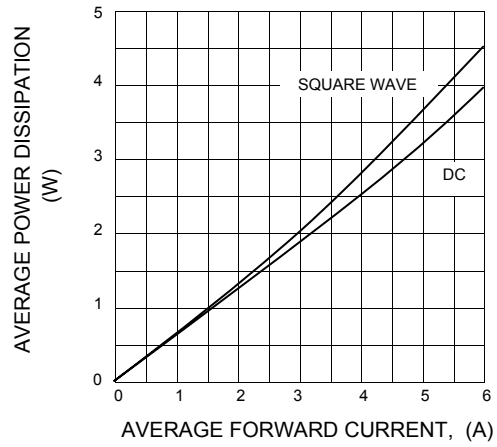


FIG.3 - TYPICAL FORWARD VOLTAGE

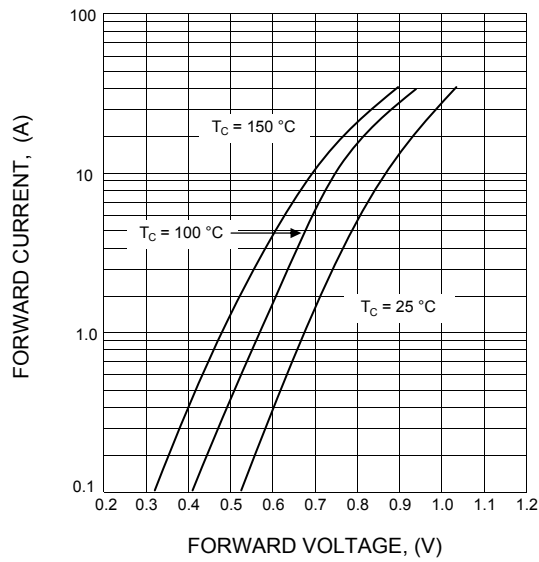


FIG.4 - TYPICAL REVERSE CURRENT

