

# MBRS3200

**PRV : 200 Volts**  
**Io : 3.0 Amperes**

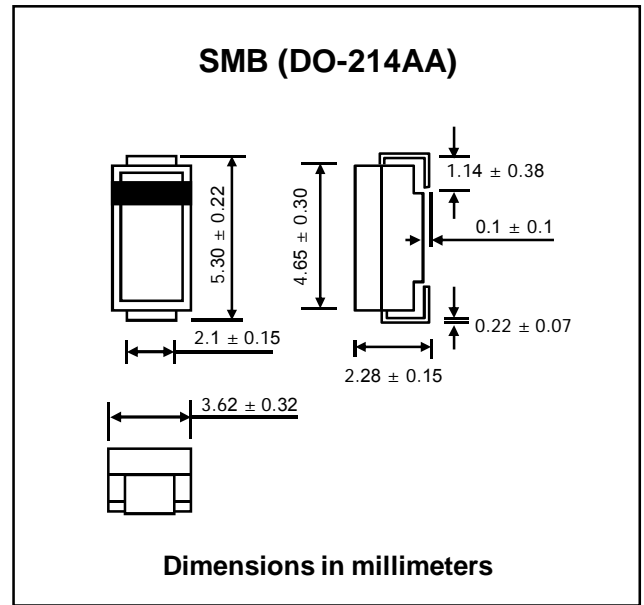
## FEATURES :

- \* 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-0 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 ( $T_L = 120\text{ °C}$ )	$I_{F(AV)}$	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) ( $I_F = 3.0\text{ A}$ , $T_J = 25\text{ °C}$ ) ( $I_F = 3.0\text{ A}$ , $T_J = 150\text{ °C}$ )	$V_F$	0.84 0.59	V
Maximum Instantaneous Reverse Current (Note1) ( Rated dc Voltage, $T_J = 25\text{ °C}$ ) ( Rated dc Voltage, $T_J = 150\text{ °C}$ )	$I_R$ $I_{R(H)}$	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)

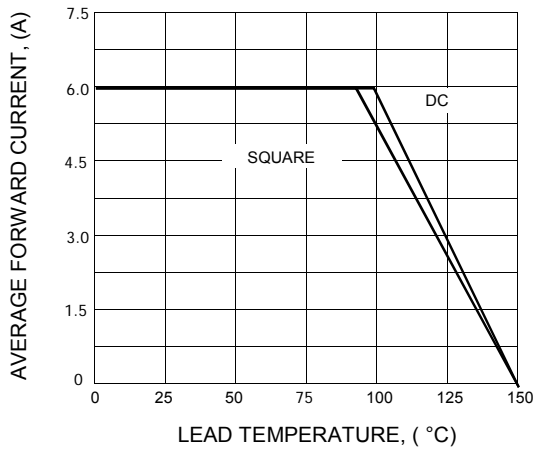


FIG.2 - FORWARD POWER DISSIPATION

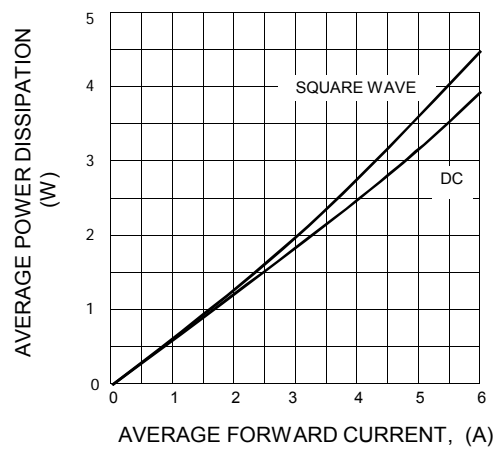


FIG.3 - TYPICAL FORWARD VOLTAGE

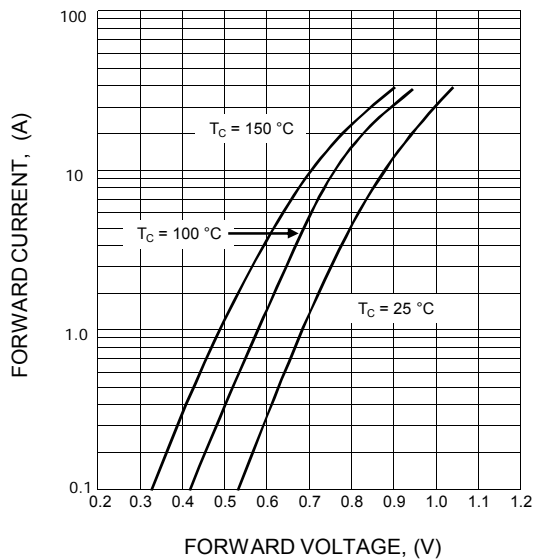


FIG.4 - TYPICAL REVERSE CURRENT

