

MBRS3100

PRV : 100 Volts
Io : 3.0 Amperes

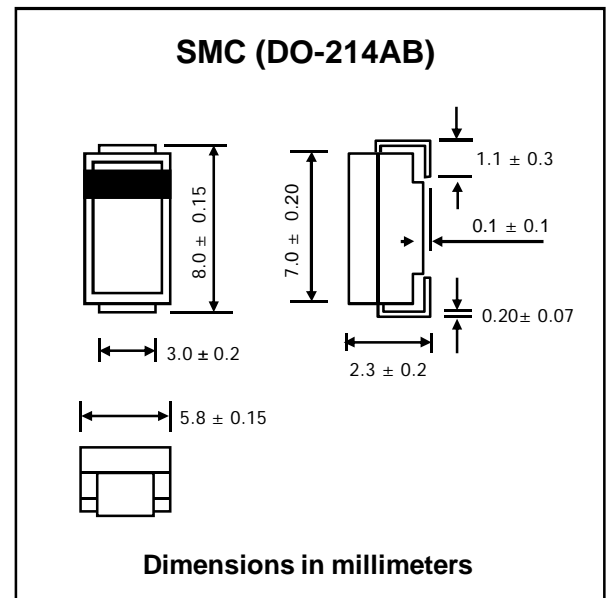
FEATURES :

- * Small Compact Surface Mountable Package
- * Highly Stable Oxide Passivated Junction
- * Excellent Ability to Withstand Reverse Avalanche Energy Transients
- * Guardring for Stress Protection
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : SMC Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.21 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}	100	V
Maximum Working Peak Reverse Voltage	V_{RWM}	100	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Rectified Forward Current @ $T_L = 100\text{ °C}$	$I_{F(AV)}$	3.0	A
Maximum Non-repetitive Peak Surge Current (Surge applied at rated load conditions half wave, single phase, 60 Hz)	I_{FSM}	130	A
Maximum Instantaneous Forward Voltage (Note 1) ($I_F = 3.0\text{ A}$, $T_J = 25\text{ °C}$)	V_F	0.79	V
Maximum Instantaneous Reverse Current (Note1) ($V_R = V_{RRM}$, $T_J = 25\text{ °C}$) ($V_R = V_{RRM}$, $T_J = 125\text{ °C}$)	I_R	0.05	mA
	$I_{R(H)}$	5.0	
Thermal Resistance Junction to Lead	$R_{\theta JL}$	11	°C/W
Operating Junction Temperature	T_J	- 65 to +150	°C

Note: (1) Pulse Test : Pulse Width = 300µs Duty Cycle ≤ 2%

RATING AND CHARACTERISTIC CURVES (MBR3100)

FIG.1 - CURRENT DERATING (LEAD)

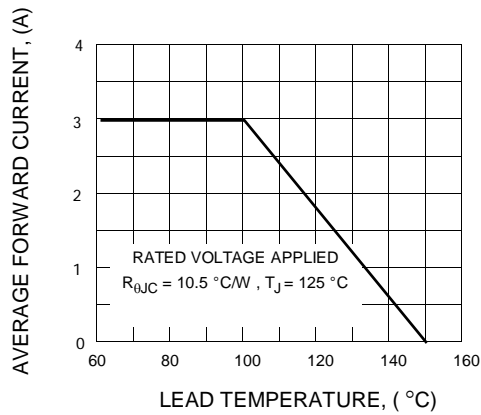


FIG.2 - POWER DISSIPATION

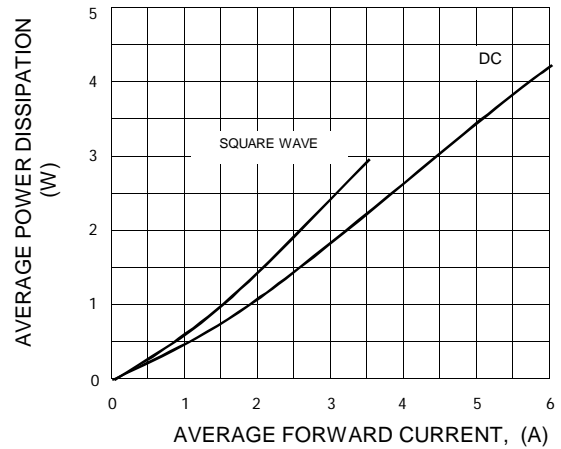


FIG.3 - TYPICAL FORWARD VOLTAGE

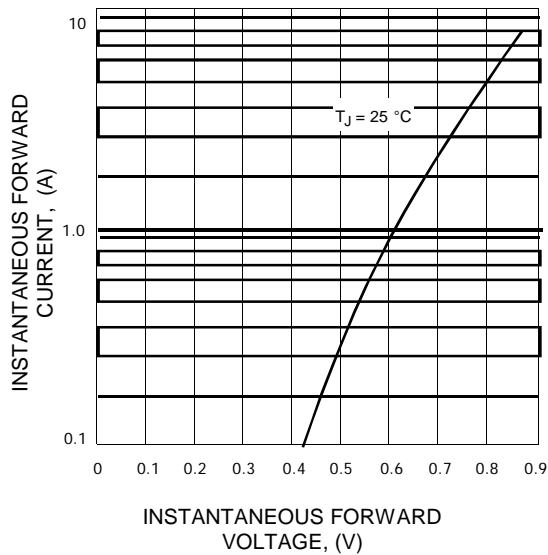


FIG.4 - TYPICAL REVERSE CURRENT

