

# MBRS1100

# SCHOTTKY BARRIER RECTIFIER

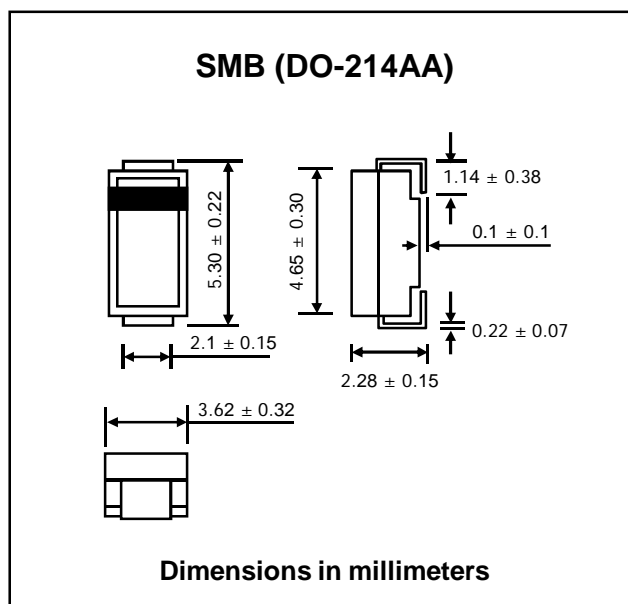
**PRV : 100 Volts**  
**Io : 1 Ampere**

### FEATURES :

- \* Very Low Forward Voltage Drop
- \* Small Compact Surface Mountable Package
- \* Highly Stable Oxide Passivated Junction
- \* Guardring 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 : 0.117 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	VRRM	100	V
Maximum Working Peak Reverse Voltage	VRWM	100	V
Maximum DC Blocking Voltage	VDC	100	V
Maximum Average Rectified Forward Current	IF(AV)	1.0 (TL = 120°C) 2.0 (TL = 100°C)	A
Non-repetitive Peak Surge Current (Surge applied at rated load conditions half wave, single phase, 60Hz)	IFSM	50	A
Maximum Instantaneous Forward Voltage (Note 1) (IF = 1.0 A, Tj = 25°C)	VF	0.75	V
Maximum Instantaneous Reverse Current (Note1) ( Rate dc Voltage, Tj = 25°C) ( Rate dc Voltage, Tj = 100°C)	IR	0.5 5.0	mA
Thermal Resistance - Junction to Lead (TL = 25°C)	RθJL	22	°C/W
Operating Junction Temperature	TJ	- 65 to +150	°C

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

## RATING AND CHARACTERISTIC CURVES ( MBR51100 )

FIG.1 - CURRENT DERATING (LEAD)

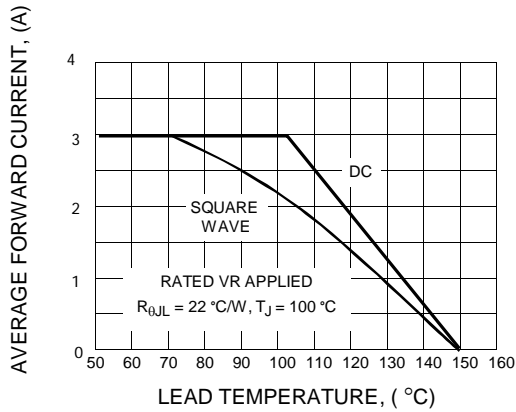


FIG.2 - POWER DISSIPATION

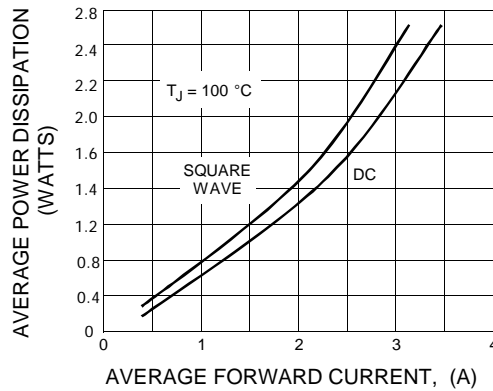


FIG.3 - TYPICAL FORWARD VOLTAGE

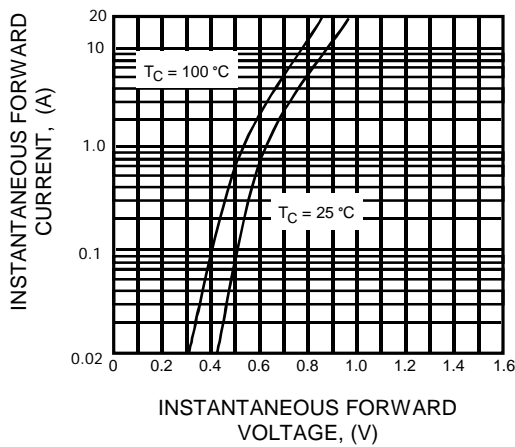


FIG.4 - TYPICAL REVERSE CURRENT

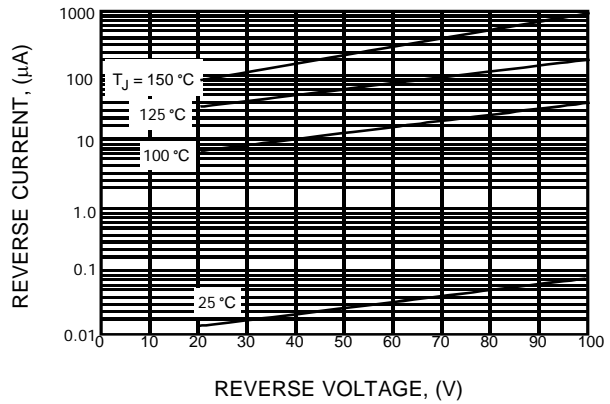


FIG. 5 TYPICAL CAPACITANCE

