

# MSKSEMI 美森科

SEMICONDUCTOR



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## **MBRS3XXT3G(MS)**

**Product specification**




## Features

- Very Low Forward Voltage Drop
- 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
- Mountingposition : Any
- Weight : 0.21 gram

## Reference News

Outline	Marking	Marking
		
SMC	MBRS330T3G(MS)	MBRS340T3G(MS)

## 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%.

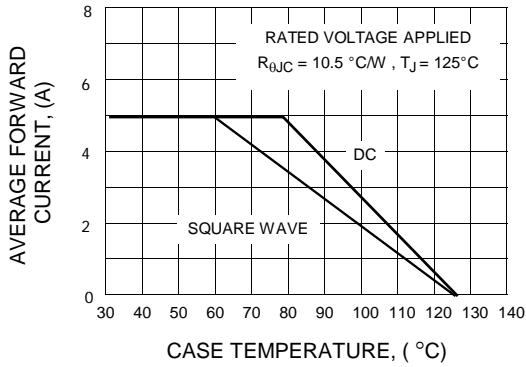
or capacitive load, derate current by 20 %.

RATING	SYMBOL	MBRS330T3G(MS)	MBRS340T3G(MS)	UNIT
Maximum Repetitive Reverse Voltage	V <sub>RRM</sub>	30	40	V
Maximum Working Peak Reverse Voltage	V <sub>RWM</sub>	30	40	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	V
Maximum Average Rectified Forward Current	I <sub>F(AV)</sub>	3.0 @ T <sub>L</sub> = 100°C		A
		4.0 @ T <sub>L</sub> = 90°C		
Maximum Non-repetitive Peak Surge Current (Surge applied at rated load conditions half wave, single phase ,60 Hz)	I <sub>FSM</sub>	80		A
Maximum Instantaneous Forward Voltage (Note 1) (I <sub>F</sub> = 3.0 A, T <sub>J</sub> = 25°C)	V <sub>F</sub>	0.50	0.525	V
Maximum Instantaneous Reverse Current (Note1)	I <sub>R</sub>	2.0 (T <sub>J</sub> = 25°C)		mA
	I <sub>R(H)</sub>	20 (T <sub>J</sub> = 100°C)		
Thermal Resistance Junction to Lead	R <sub>θJL</sub>	11		°C/W
Operating Junction Temperature	T <sub>J</sub>	- 65 to +125		°C

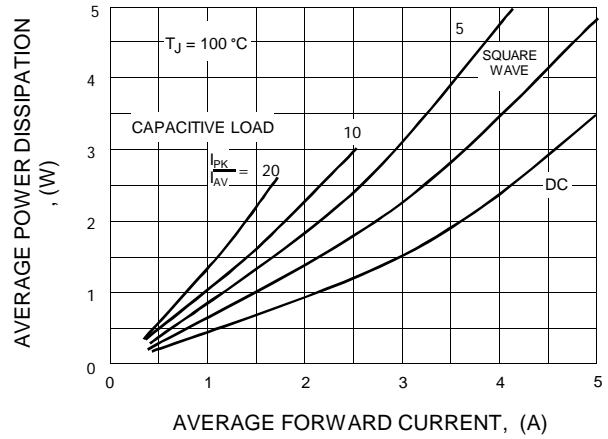
**Note:** (1) Pulse Test : Pulse Width = 300 $\mu$ s Duty Cycle  $\leq$  2%

## RATING AND CHARACTERISTIC CURVES ( MBRS330T3G(MS), MBRS340T3G(MS) )

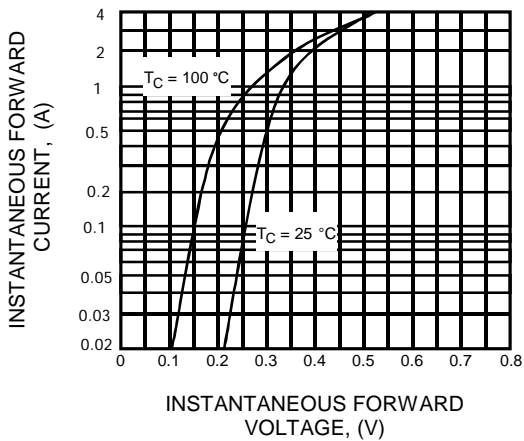
**FIG.1 - CURRENT DERATING (CASE)**



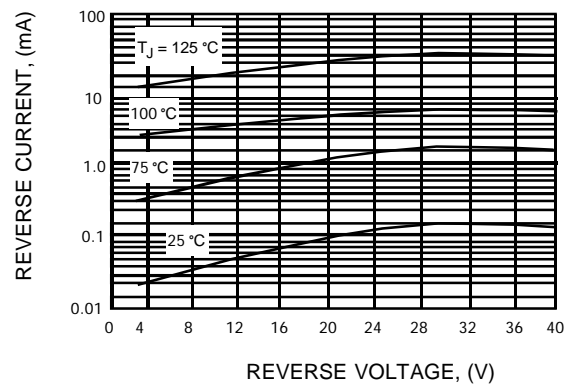
**FIG.2 - POWER DISSIPATION**



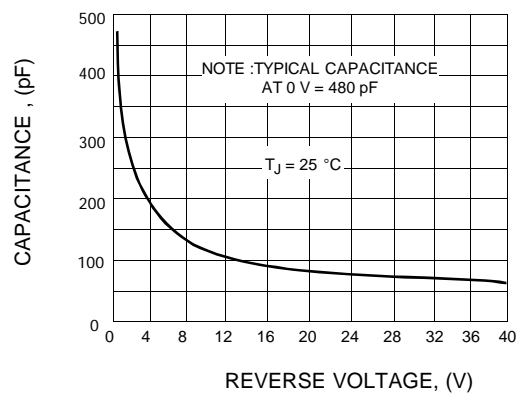
**FIG.3 - TYPICAL FORWARD VOLTAGE**



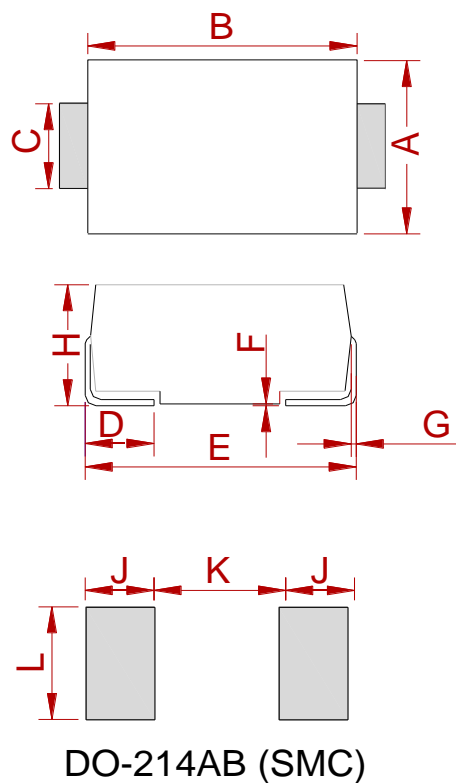
**FIG.4 - TYPICAL REVERSE CURRENT**



**FIG. 5 TYPICAL CAPACITANCE**



PACKAGE MECHANICAL DATA



Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.75	6.25	0.226	0.246
B	6.90	7.40	0.272	0.291
C	2.75	3.25	0.108	0.128
D	0.95	1.52	0.037	0.060
E	7.70	8.20	0.303	0.323
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.15	2.62	0.085	0.103
J	2.40		0.094	
K		4.20		0.165
L	3.30		0.130	

REEL SPECIFICATION

P/N	PKG	QTY
MBRS3XXT3G(MS)	SMC	3000

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