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SEMICONDUCTOR



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MBRS3100T3G(MS)

Product specification


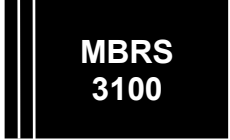
FEATURES

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

MECHANICAL DATA

- Case : SMCMolded plastic
- Epoxy : UL94V-O rate flameretardant
- Lead : Lead Formed for Surface Mount
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.21 gram

Reference News

Outline	Marking
	
SMC	

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 @ $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	3.0	A
Maximum Non-repetitive Peak Surge Current (Surge applied at rated load conditions half wave, single phase, 60 Hz)	I_{FSM}	130	A
Maximum Instantaneous Forward Voltage (Note 1) ($I_F = 3.0\text{ A}$, $T_J = 25^\circ\text{C}$)	V_F	0.79	V
Maximum Instantaneous Reverse Current (Note1) ($V_R = V_{RRM}$, $T_J = 25^\circ\text{C}$) ($V_R = V_{RRM}$, $T_J = 125^\circ\text{C}$)	I_R	0.05	mA
	$I_{R(H)}$	5.0	
Thermal Resistance Junction to Lead	$R_{\theta JL}$	11	$^\circ\text{C/W}$
Operating Junction Temperature	T_J	- 65 to +150	$^\circ\text{C}$

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

RATING AND CHARACTERISTIC CURVES

FIG.1 - CURRENT DERATING (LEAD)

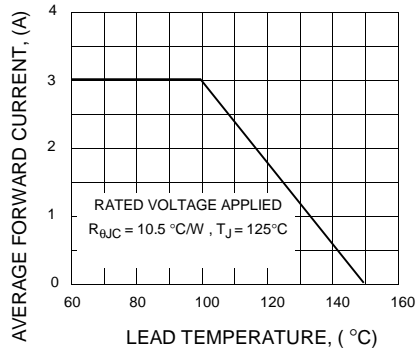


FIG.2 - POWER DISSIPATION

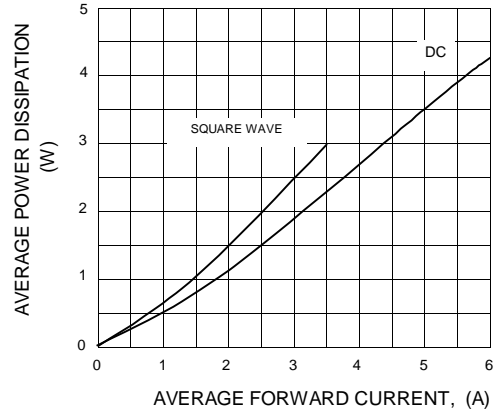


FIG.3 - TYPICAL FORWARD VOLTAGE

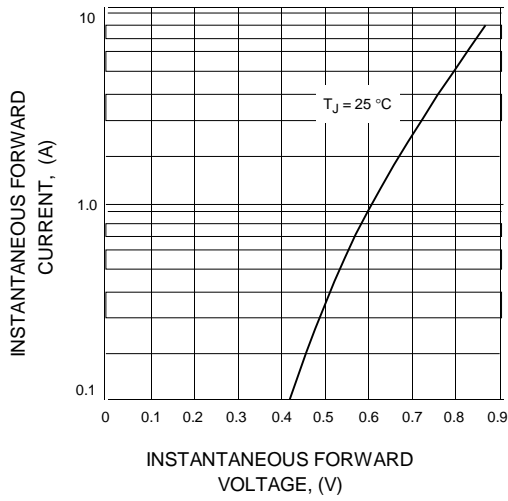
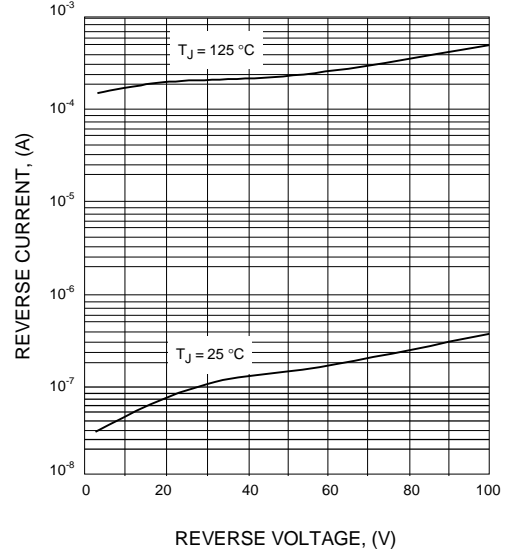
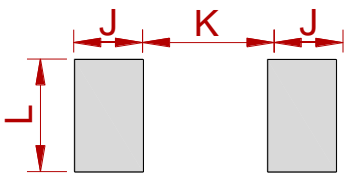
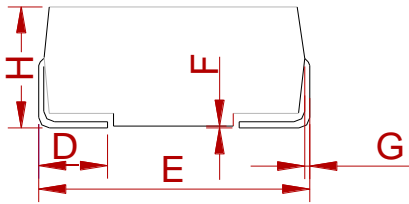
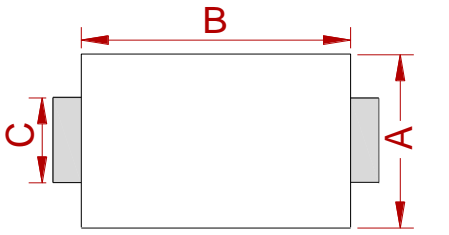


FIG.4 - TYPICAL REVERSE CURRENT



PACKAGE MECHANICAL DATA



DO-214AB (SMC)

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
MBRS3100T3G(MS)	SMC	3000

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