# MSKSEMI 美森科













**ESD** 

TVS

TSS

MOV

GDT

PIFD

# MBRS360T3G(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
- 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

### **Reference News**

Outline	Pin Configuration	Marking
		MBRS 360
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 <sub>RRM</sub>	60	V
Maximum Working Peak Reverse Voltage	V <sub>RWM</sub>	60	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	60	V
Maximum Average Rectified Forward Current @ T <sub>L</sub> = 137 °C	I <sub>F(AV)</sub>	3.0	А
Maximum Non-repetitive Peak Surge Current (Surge applied at rated load conditions half wave, single phase ,60 Hz)	I <sub>FSM</sub>	125	А
Maximum Instantaneous Forward Voltage (Note 1) ( I $_{\rm F}$ = 3.0 A, T $_{\rm J}$ = 25 °C)	V <sub>F</sub>	0.74	V
Maximum Instantaneous Reverse Current (Note1) ( $V_R = V_{RRM}, T_J = 25  ^{\circ}\text{C}$ ) ( $V_R = V_{RRM}, T_J = 100  ^{\circ}\text{C}$ )	I <sub>R</sub>	0.15 10.0	mA
Thermal Resistance Junction to Ambient (Note 2)	R <sub>OJA</sub>	164	°C/W
Thermal Resistance Junction to Lead (Note 2)	R <sub>eJL</sub>	11	°C/W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 65 to +175	°C

#### Notes

- (1) Pulse Test : Pulse Width = 300  $\mu$  s Duty Cycle  $\leq$  2%
- (2) Mounted with minimum recommended pad size, PC Board FR4



# RATING AND CHARACTERISTIC CURVES

FIG.1 - CURRENT DERATING

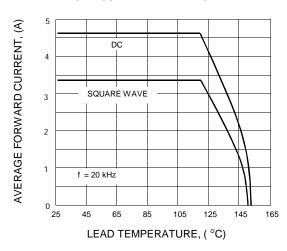


FIG.2 - FORWARD POWER DISSIPATION

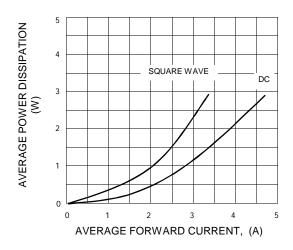


FIG.3 - TYPICAL FORWARD VOLTAGE

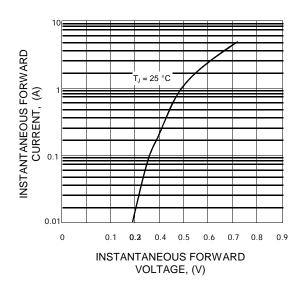
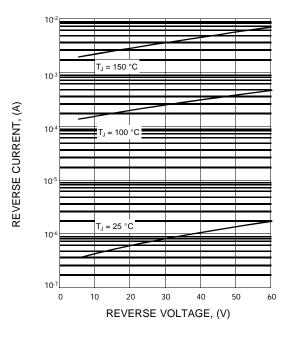
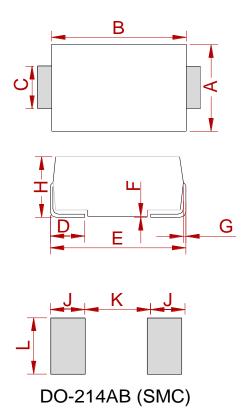


FIG.4 - TYPICAL REVERSE CURRENT





# PACKAGE MECHANICAL DATA



	Dimensions			
Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
Α	5.75	6.25	0.226	0.246
В	6.90	7.40	0.272	0.291
С	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
Н	2.15	2.62	0.085	0.103
J	2.40		0.094	
K		4.20		0.165
L	3.30		0.130	

# **REELSPECIFICATION**

P/N	PKG	QTY
MBRS360T3G(MS)	SMC	3000



# **Attention**

- Any and all MSKSEMI Semiconductor products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your MSKSEMI Semiconductor representative nearest you before using any MSKSEMI Semiconductor products described or contained herein in such applications.
- MSKSEMI Semiconductor assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specificationsof any andall MSKSEMI Semiconductor products described or contained herein.
- Specifications of any and all MSKSEMI Semiconductor products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer'sproducts or equipment.
- MSKSEMI Semiconductor. strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with someprobability. It is possiblethat these probabilistic failures could give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents—or events cannot occur. Such measures include but are not limited to protective circuits anderror prevention circuitsfor safedesign, redundant design, and structural design.
- In the event that any or all MSKSEMI Semiconductor products (including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from theauthorities concerned in accordance with the above law.
- No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or any information storage or retrieval system, or otherwise, without the prior written permission of MSKSEMI Semiconductor.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. MSKSEMI Semiconductor believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.
- Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. Whendesigning equipment, referto the "Delivery Specification" for the MSKSEMI Semiconductor productthat you intend to use.