Surface Mount Glass Passivated Rectifier

DO-214AC (SMA)

RoHS COMPLIANT

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Built-in strain relief, ideal for automated placement
- Glass passivated chip junction
- High temperature soldering guaranteed 260°C/ 10 seconds
- RoHS and REACH compliance

Mechanical Data

Case:	DO-214AC, transfer molded plastic
Epoxy:	Meets UL 94V-0 flammability rating
Terminals:	Solder plated, solderable per MIL-STD 750, Method 2026
Polarity:	Cathode indicated by color band
Mounting position:	Any
Weight:	0.002 Ounce, 0.064 gram

Maximum Ratings *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	**V**	
VRMS	Max RMS Voltage	35	70	140	280	420	560	700	**V**	
VDC	Max DC Blocking Voltage	50	100	200	400	600	800	1000	**V**	
I(AV)	Max Average Forward Rectified Current	1.0							**A**	TA=105℃
IFSM	Peak Forward Surge Current	40					30		**A**	8.3ms single half sine-wave (JEDEC)
trr	Maximum Reverse Recovery Time	1.8							**μS**	IF=0.5A, IR=1.0A, IRR=0.25A
TJ, TSTG	Operating and Storage Temperature Range	-55 to +150							**℃**	

Electrical Characteristics *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Unit	Conditions
V_F	Max Instantaneous Forward Voltage	1.1							**V**	$I_{F(AV)}$= 1.0A
I_R	Max DC Reverse Current at Rated DC Blocking Voltage	1.0					5.0		**μA**	TA=25℃
		50								TA=125℃
C_J	Typical Junction Capacitance	12							**pF**	At 1MHz, reversed voltage of 4V
$R_{\theta\text{-}JA}$	Typical Thermal Resistance	75					85		**℃/W**	Note 2
$R_{\theta\text{-}JL}$		27					30			

Note:

1. Single phase, half wave, 60Hz, resistive or inductive load. Derate current by 20% for capacitive load
2. Thermal resistance from junction to ambient at .375" (9.5mm) lead length, PCB mounted

Typical Characteristics Curves

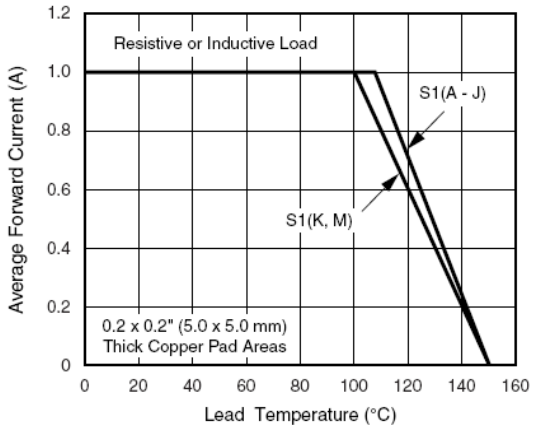


Figure 1. Forward Current Derating Curve

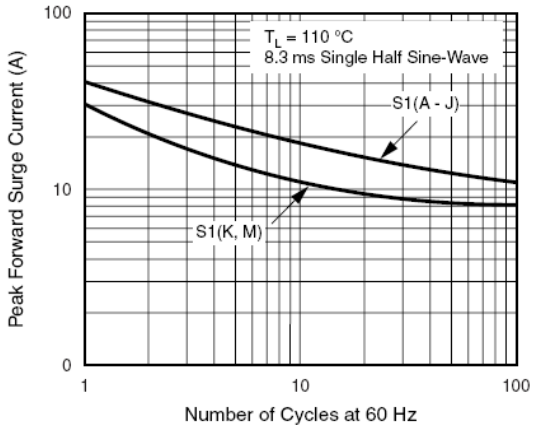


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

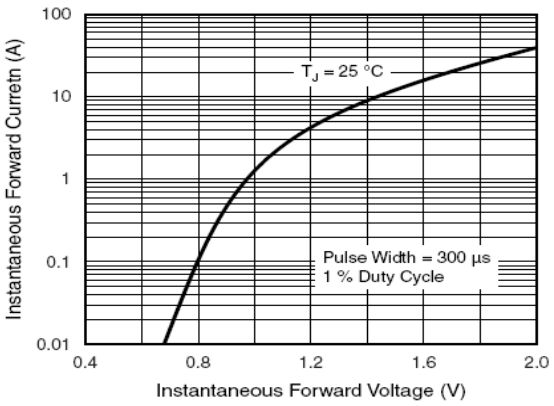


Figure 3. Typical Instantaneous Forward Characteristics

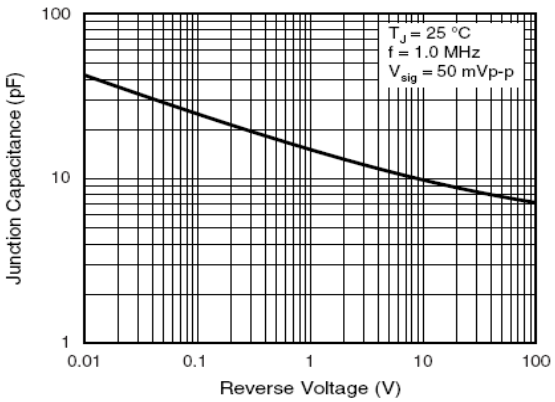


Figure 5. Typical Junction Capacitance

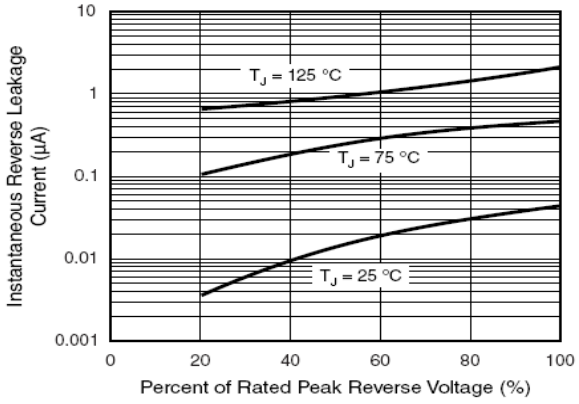


Figure 4. Typical Reverse Leakage Characteristics

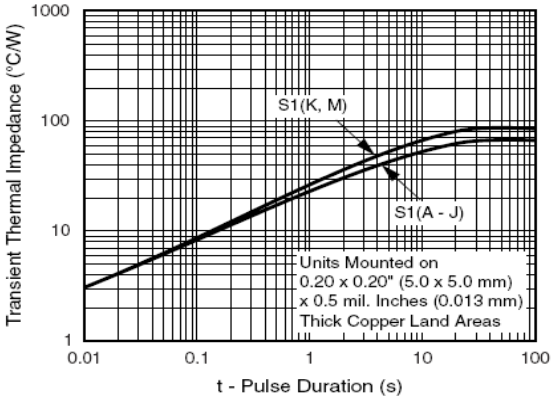
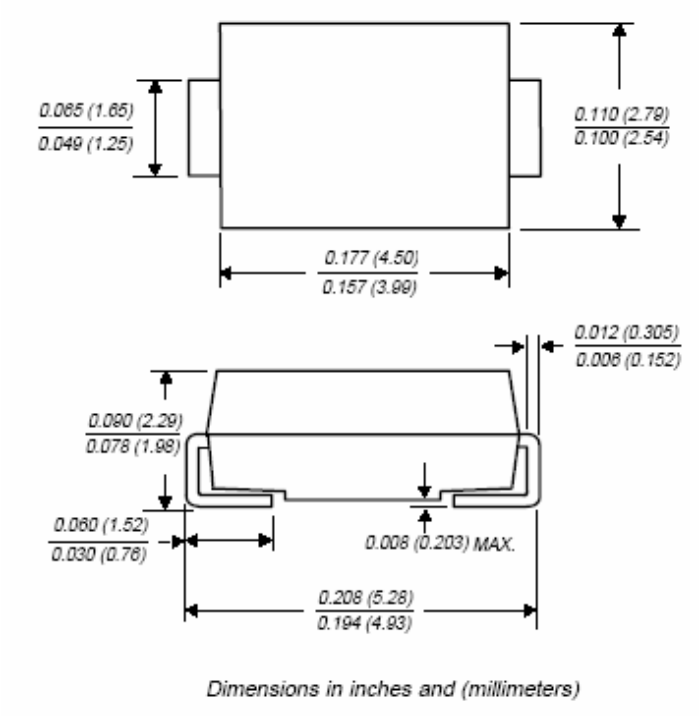


Figure 6. Typical Transient Thermal Impedance

Dimensions in inch (mm)



DO-214AC(SMA)

Contact us:

US HEADQUARTERS

MEI SEMI INC.

2900 Corvin Drive, Santa Clara, CA95051, USA

Tel: 1-408-733-0808 Fax: 1-408-733-2828

CHINA FACTORY

MEI SEMI CO., LTD

#2189, South Hu Xi Road, Ma An Shan City, An Hui Province, 243000, China

Tel: 86-555-2293000 Fax: 86-555-2967688