

**SURFACE MOUNT  
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 400 to 1000 Volts  
FORWARD CURRENT – 2.0 Ampere**

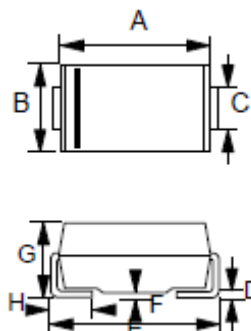
**FEATURES**

- Glass passivated chip
- For surface mounted applications
- Low reverse leakage current
- Low forward voltage drop
- High current capability

**MECHANICAL DATA**

- Case: Molded plastic
- Polarity: Indicated by cathode band
- Terminals: Solder plated copper
- Weight: 0.002 ounce, 0.064 grams

**SMA**



SMA		
DIM.	MIN.	MAX.
A	4.06	4.57
B	2.29	2.92
C	1.27	1.63
D	0.15	0.31
E	4.83	5.59
F	0.05	0.20
G	2.01	2.40
H	0.76	1.52

All dimension in millimeter

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

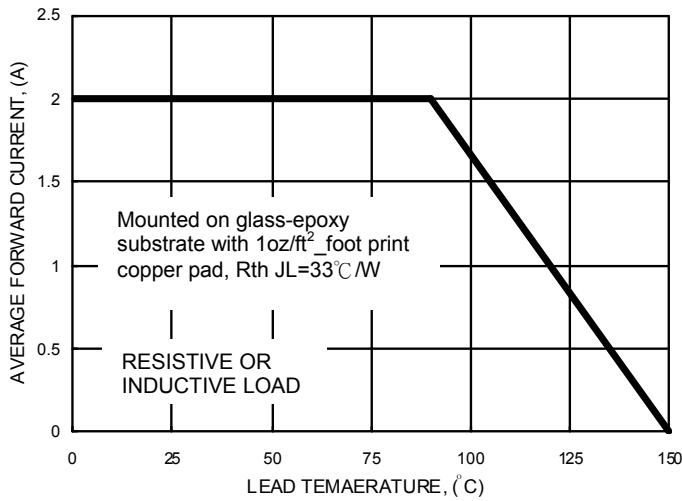
PARAMETER	SYMBOL	S2GHA	S2JHA	S2KHA	S2MHA	UNIT
Device marking code	Note	<b>S2GHA</b>	<b>S2JHA</b>	<b>S2KHA</b>	<b>S2MHA</b>	---
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	400	600	800	1000	V
Average Rectified Output Current @ $T_L=90^\circ C$	$I_{(AV)}$	2.0				A
Peak Forward Surge Current 8.3ms single half sine-wave	$I_{FSM}$	50				A
Operating junction temperature range	$T_J$	-55 to +150				°C
Storage temperature range	$T_{STG}$	-55 to +150				°C
PARAMETER	TEST CONDITIONS	SYMBOL	Max.			UNIT
Forward Voltage (1)	$I_F=2.0A$ $T_j=25^\circ C$	$V_F$	1.15			V
Leakage Current (1)	$V_R=V_{DC}$ $T_j=25^\circ C$ $T_j=125^\circ C$	$I_R$	5 125			uA
THERMAL CHARACTERISTIC		SYMBOL	Typical			UNIT
Typical junction capacitance (2)		$C_J$	10			pF
Typical thermal resistance _ Junction to Case (3)		$R_{\theta JC}$	21			°C/W
Typical thermal resistance _ Junction to Ambient (3)		$R_{\theta JA}$	58			°C/W
Typical thermal resistance _ Junction to Lead (3)		$R_{\theta JL}$	33			°C/W

**Note :**

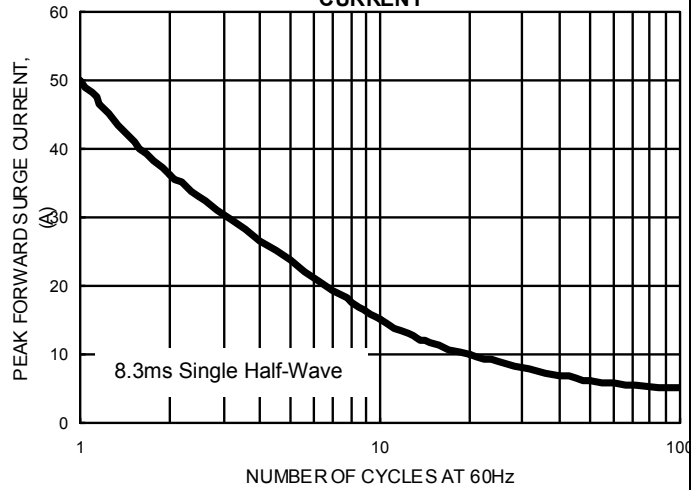
- (1) 300us Pulse width, 2% Duty cycle.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- (3) Thermal Resistance test performed in accordance with JESD-51. Unit mounted on 0.75t glass-epoxy substrate with 10mmx10mm copper pad.  $R_{\theta JL}$  is measured at the lead of cathode band,  $R_{\theta JC}$  is measured at the top centre of body.

**REV. 0, Apr-2010, KSDA05**

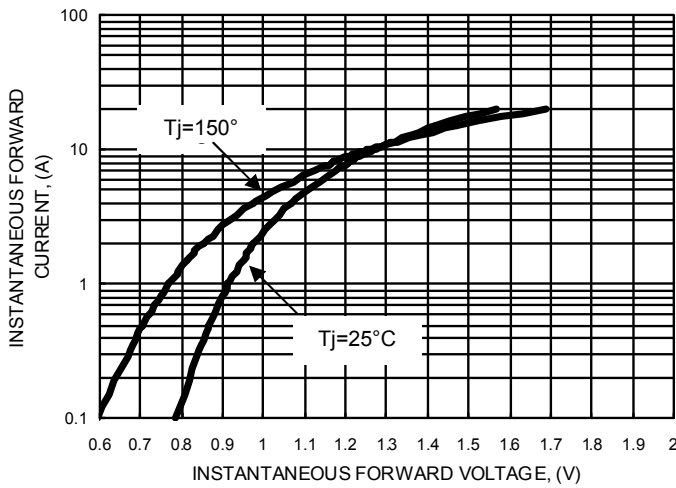
**FIG.1- FORWARD CURRENT DERATING CURVE**



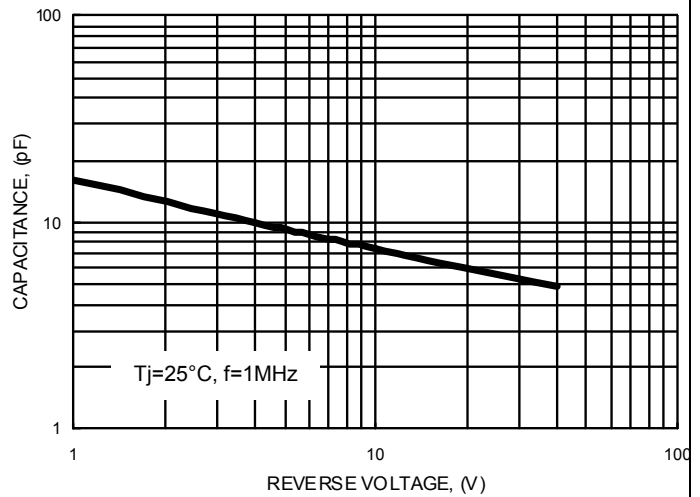
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



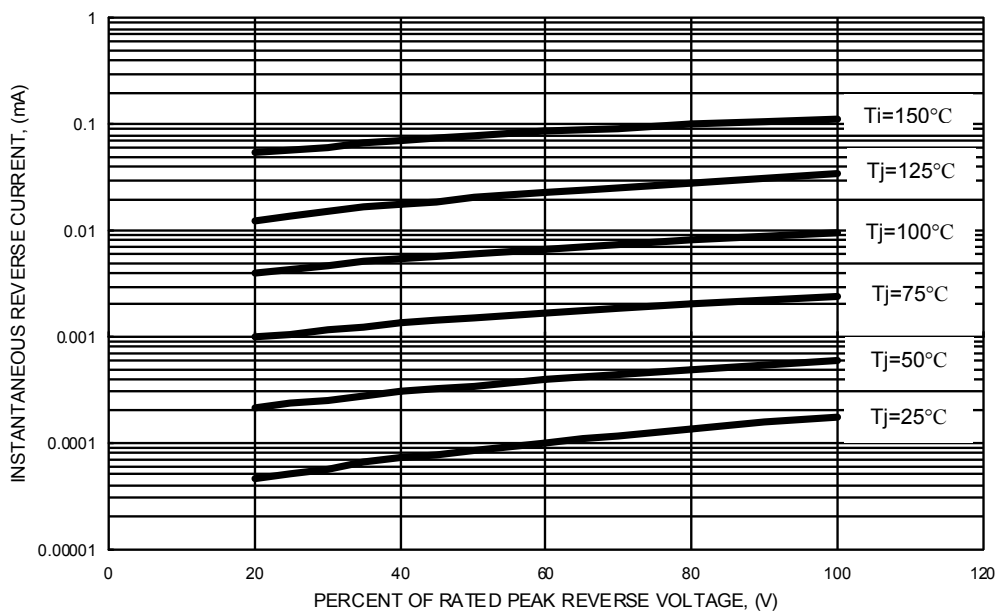
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



## **Important Notice and Disclaimer**

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.