Small Signal Product

1A, 50V - 1000V Surface Mount Glass Plassivated Silicon Rectifiers

FEATURES

- Plastic package has carries underwriters
- Ideal for automated placement
- Surge overload rating to 30 Amperes peak
- Reliable low cost construction utilizing molded plastic technique results in in-expensive product
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC

MELF

Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

Case: MELF

Molding compound, UL flammability classification rating 94V-0

Mounting position: Any

Polarity: Indicated by silver cathode band

Weight: 0.12 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)									
PARAMETER	SYMBOL	LL4001G	LL4002G	LL4003G	LL4004G	LL4005G	LL4006G	LL4007G	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	1							A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum instantaneous forward voltage (Note 1) @ 1 A	V_F	1.1							V
Maximum reverse current @ rated V_R T_J=25°C	I_R	5							μA
T_J=125°C		100							
Typical junction capacitance (Note 2)	C_J	15							pF
Typical thermal resistance	$R_{\theta JC}$	50							°C/W
Operating junction temperature range	T_J	- 65 to +150							°C
Storage temperature range	T_{STG}	- 65 to +150							°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

Note 2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V DC.

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

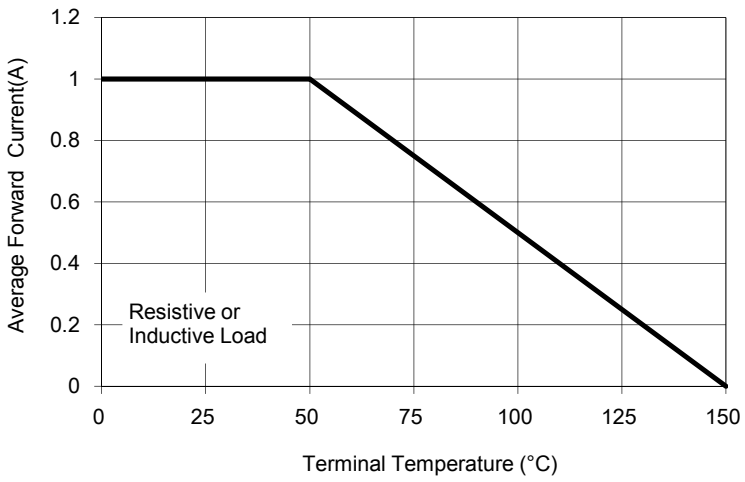


Fig. 2 Maximum Non-Repetitive Peak Forward Surge Current

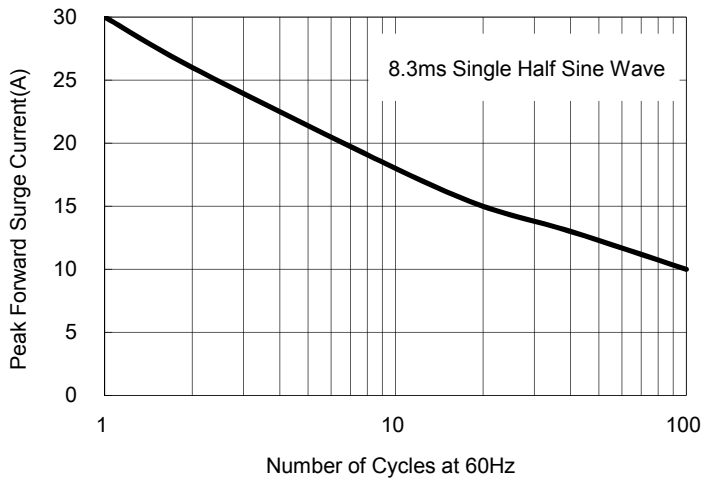


Fig. 3 Instantaneous Forward Characteristics

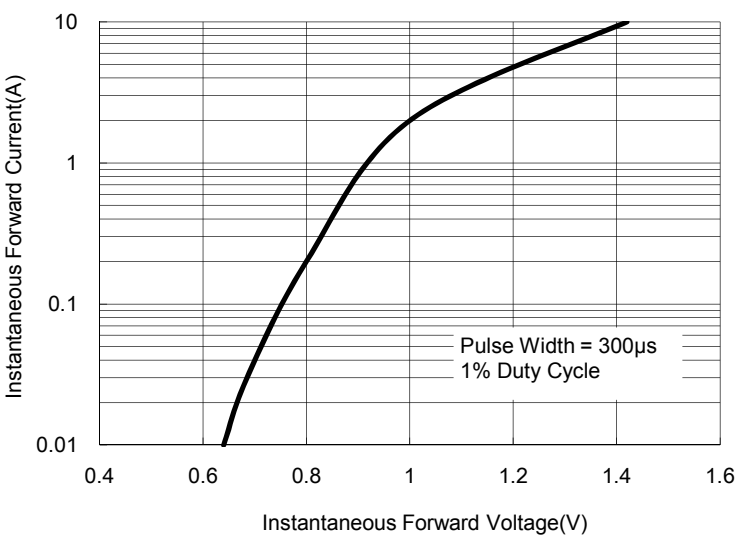


Fig. 4 Typical Reverse Characteristics

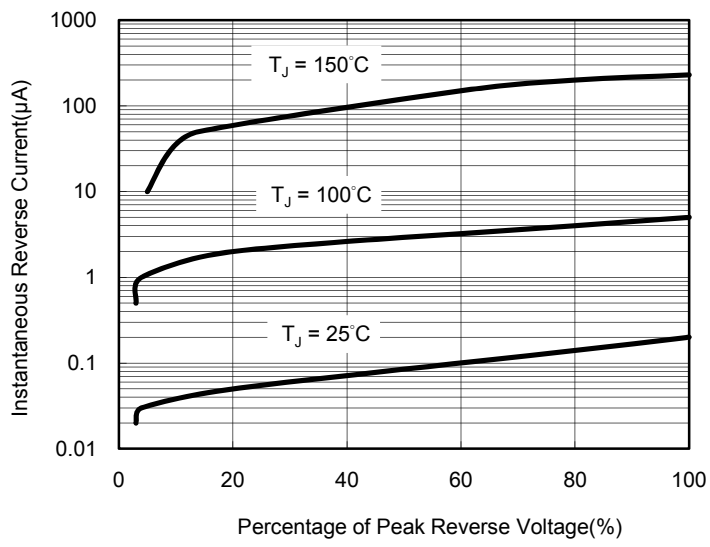


Fig. 5 Typical Junction Capacitance

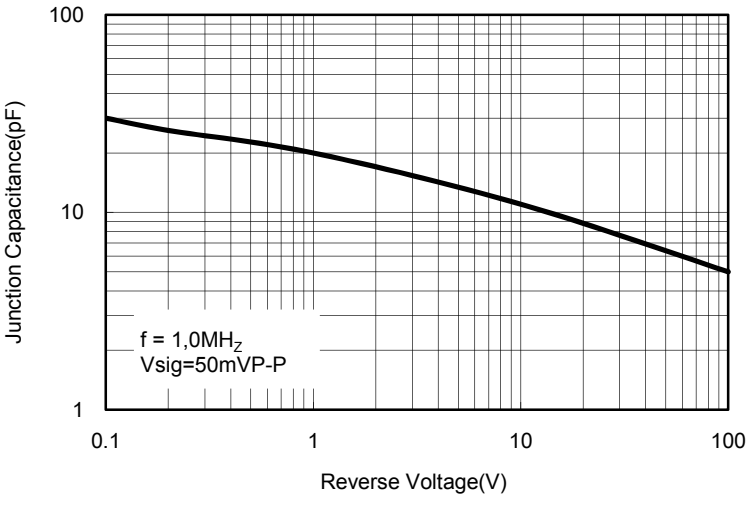
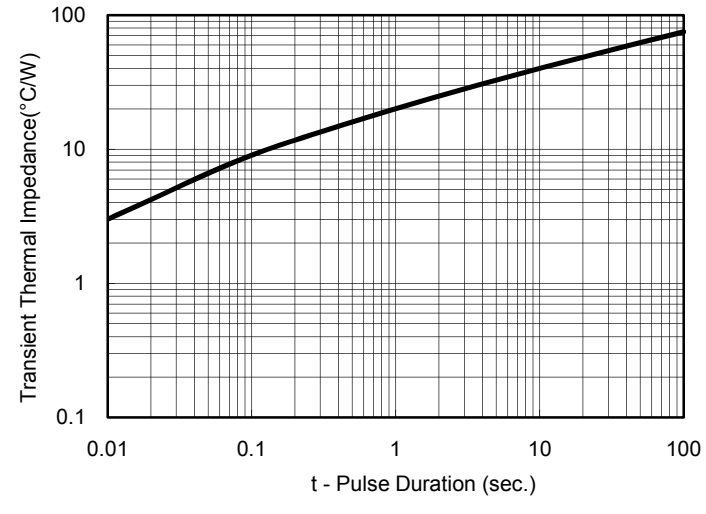


Fig. 6 Typical Transient Thermal Impedance



Small Signal Product

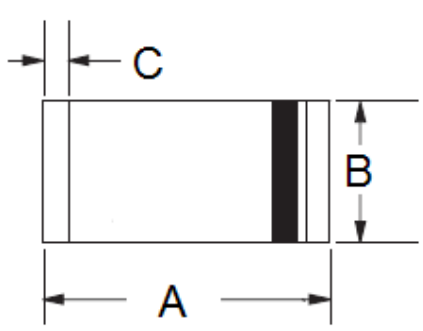
ORDERING INFORMATION			
PART NO.	PACKING CODE	PACKAGE	PACKING
LL400xG (Note 1)	L0	MELF	5K / 13" Reel

Note 1: "x" defines voltage from 50V (LL4001G) to 1000V (LL4007G)

EXAMPLE			
PREFERRED P/N	PART NO.	PACKING CODE	DESCRIPTION
LL4007G L0	LL4007G	L0	

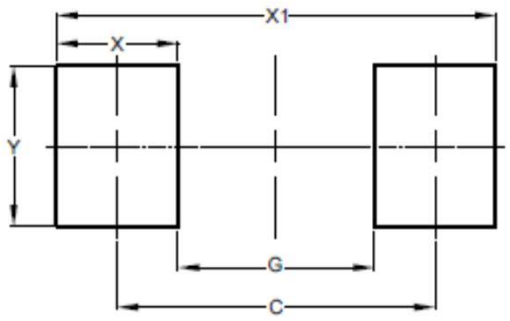
PACKAGE OUTLINE DIMENSIONS

MELF



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.80	5.50	0.189	0.217
B	2.25	2.67	0.089	0.105
C	0.30	0.60	0.012	0.024

SUGGEST PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
C	4.80	0.189
G	3.30	0.130
X	1.50	0.059
X1	6.30	0.248
Y	2.70	0.106

Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.