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.

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RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

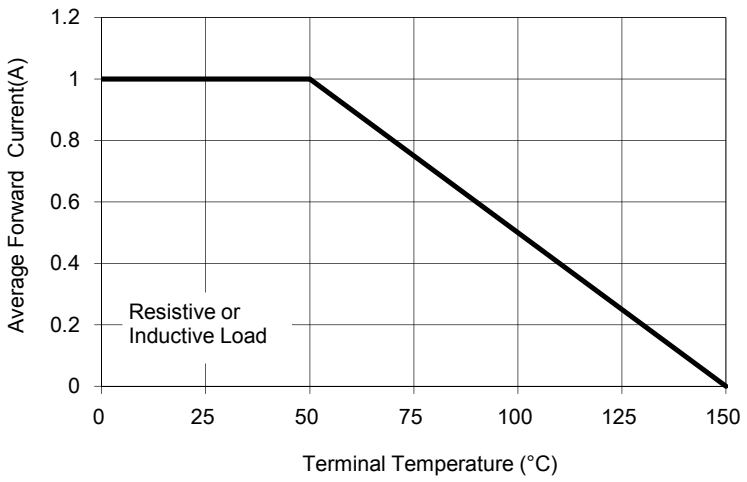


Fig. 2 Maximum Non-Repetitive Peak Forward Surge Current

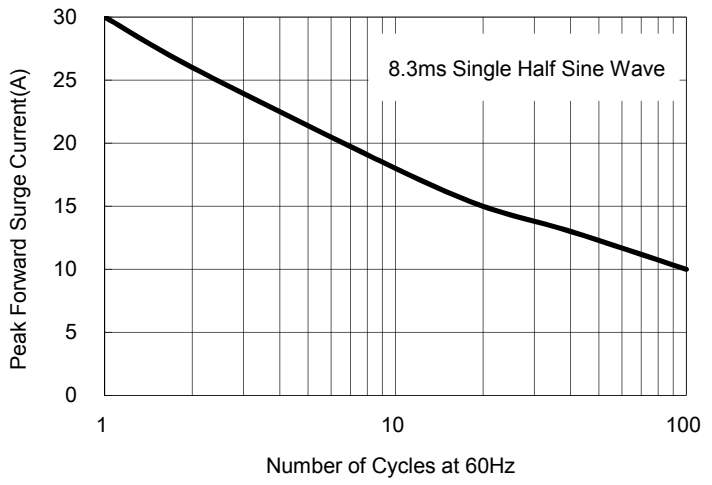


Fig. 3 Instantaneous Forward Characteristics

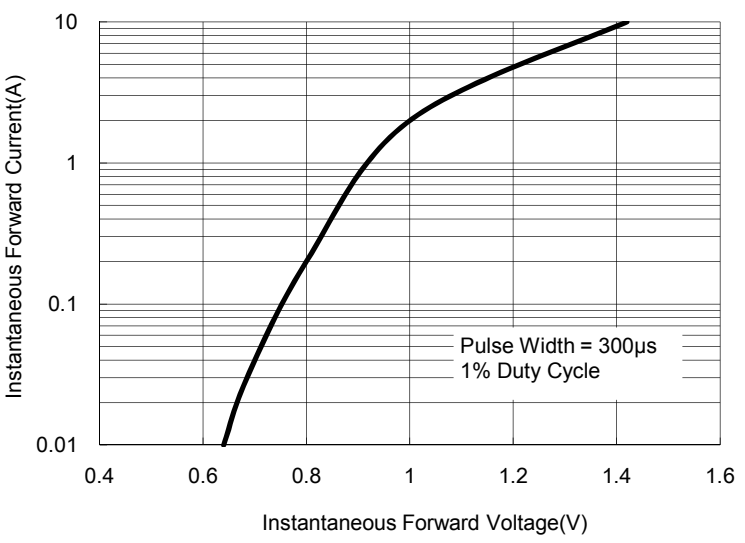


Fig. 4 Typical Reverse Characteristics

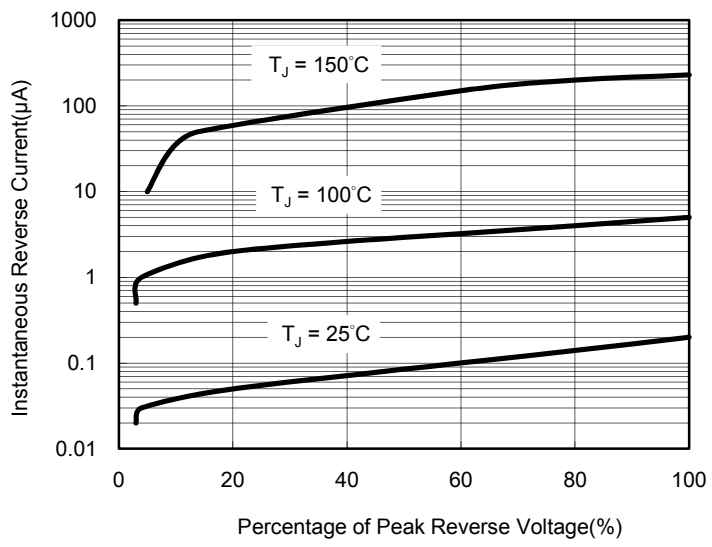


Fig. 5 Typical Junction Capacitance

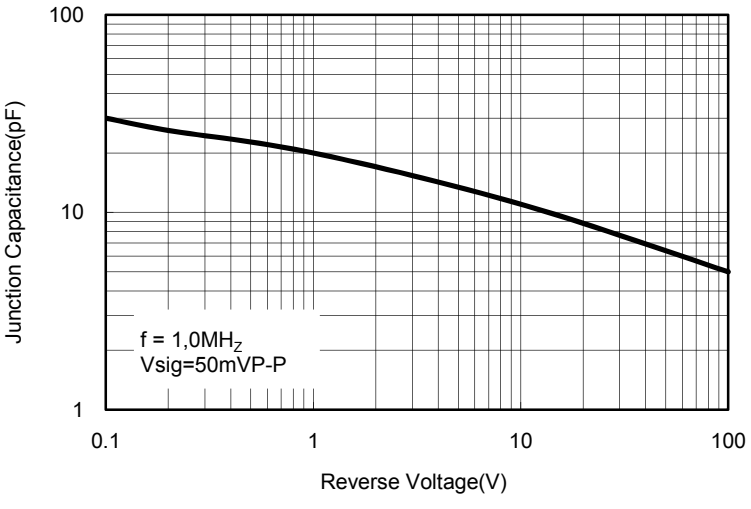
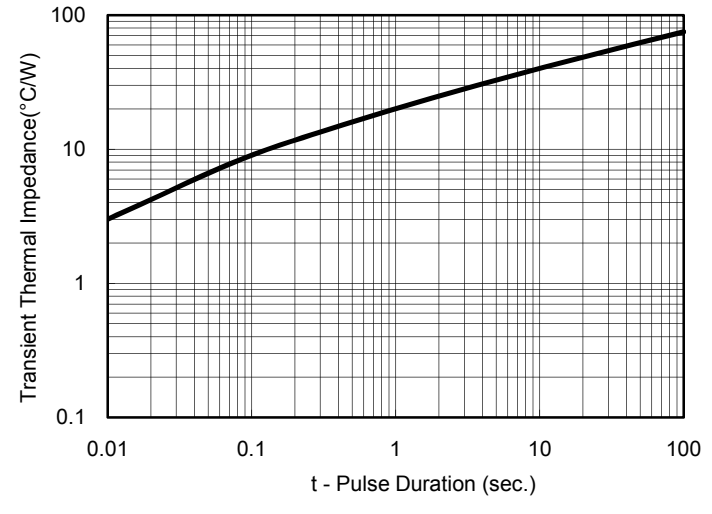


Fig. 6 Typical Transient Thermal Impedance



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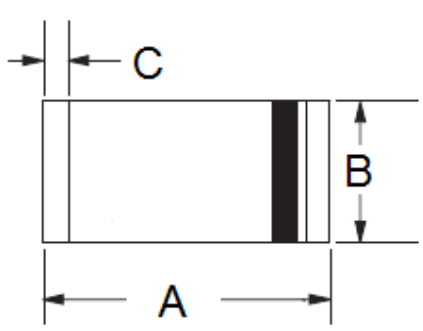
ORDERING INFORMATION			
PART NO.	PACKING CODE	PACKAGE	PACKING
LL400xG (Note 1)	L0	MELF	5K / 13" Reel

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

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

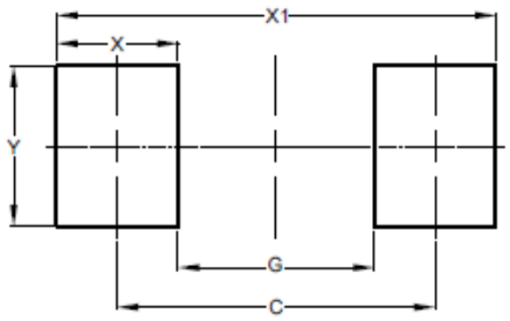
PACKAGE OUTLINE DIMENSIONS

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

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