

LL4001G THRU LL4007G

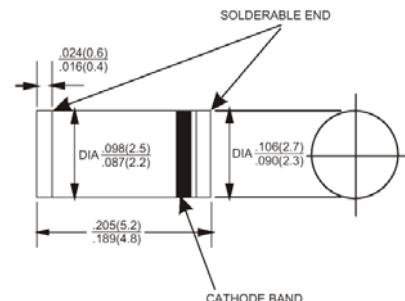
SURFACE MOUNT GLASS PASSIVATED SILICON RECTIFIERS

Reverse Voltage - 50 to 1000 V

Forward Current - 1 A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction



Plastic case MELF (DO-213AB)
Dimensions in inches and (millimeters)

Mechanical data

- **Case:** Molded plastic, MELF (DO-213AB)
- **Terminals:** Solder plated, solderable per MIL-STD-750, method 208 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any

Maximum Ratings and Electrical characteristics

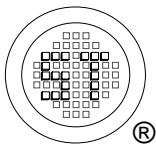
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	LL4001G	LL4002G	LL4003G	LL4004G	LL4005G	LL4006G	LL4007G	Units
Maximum Recurrent 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 at T _A = 75 °C	I _{F(AV)}						1		A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}						30		A
Maximum Forward Voltage at 1 A	V _F					1.1			V
Maximum Reverse Current T _A = 25 °C at Rated DC Blocking Voltage T _A = 125 °C	I _R				5	200			µA
Typical Junction Capacitance ¹⁾	C _J				15				pF
Typical Thermal Resistance ²⁾	R _{θJA}				50				°C/W
Typical Thermal Resistance ³⁾	R _{θJT}				20				°C/W
Operating Junction Temperature Range	T _j			- 55 to + 150					°C
Storage Temperature Range	T _{stg}			- 55 to + 150					°C

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V D.C

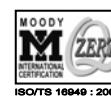
²⁾ Thermal resistance from junction to ambient, 0.24 X 0.24" (6 X 6 mm) copper pads to each terminal

³⁾ Thermal resistance from junction to terminal, 0.24 X 0.24" (6 X 6 mm) copper pads to each terminal



SEMTECH ELECTRONICS LTD.

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ISO/TS 16949 : 2002 Certificate No. 05103 ISO 14001:2000 Certificate No. 7116 ISO 9001:2000 Certificate No. 050906 B9-OHSAS 18001:2007 Certificate No. 7116 IECQ QC 080000 Certificate No. PCH-0451

Dated : 23/12/2008 H

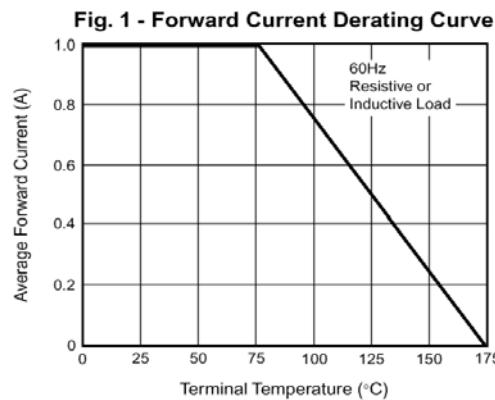


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

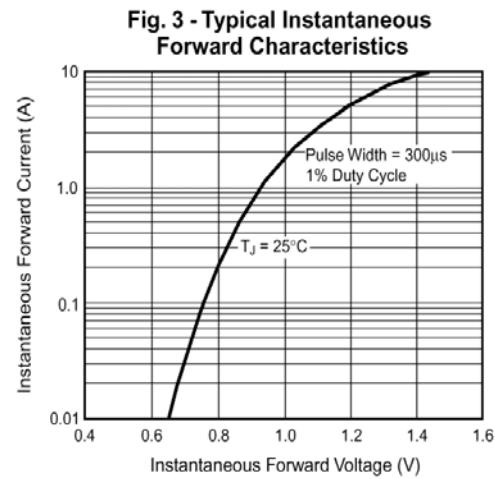
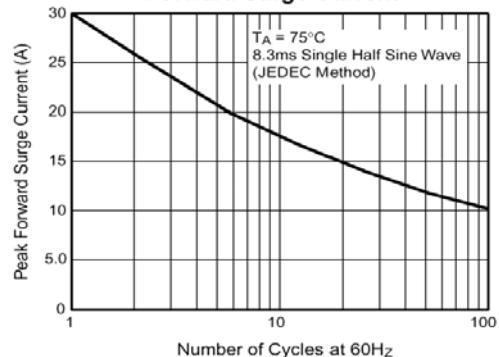


Fig. 4 - Typical Reverse Characteristics

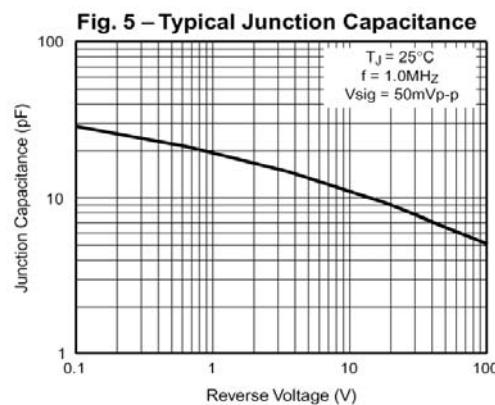
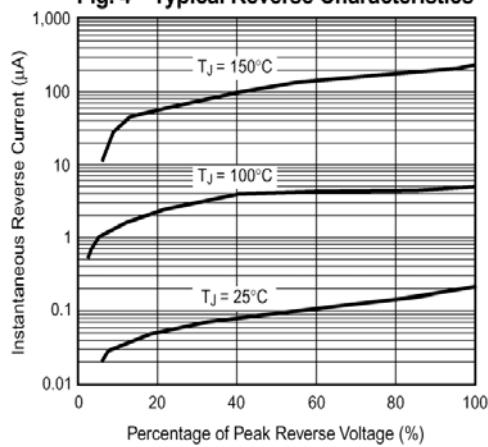
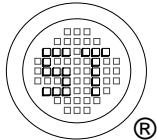
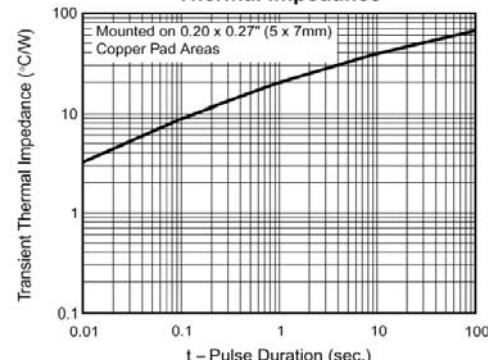


Fig. 6 - Typical Transient Thermal Impedance



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