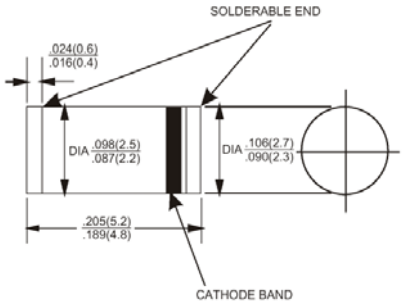
LL4001G THRU LL4007G

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 at Rated DC Blocking Voltage T_A = 25 °C / T_A = 125 °C	I_R	5 / 200							µA
Typical Junction Capacitance [1]	C_J	15							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	50							°C/W
Typical Thermal Resistance [3]	$R_{\theta JT}$	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

Fig. 1 - Forward Current Derating Curve

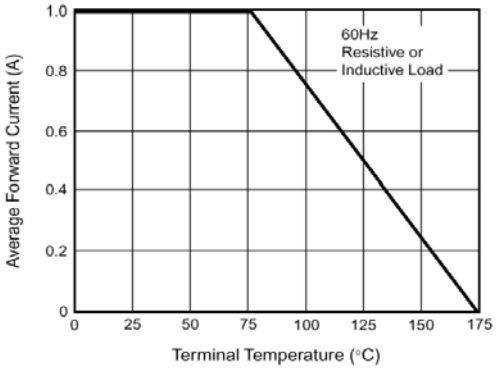


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

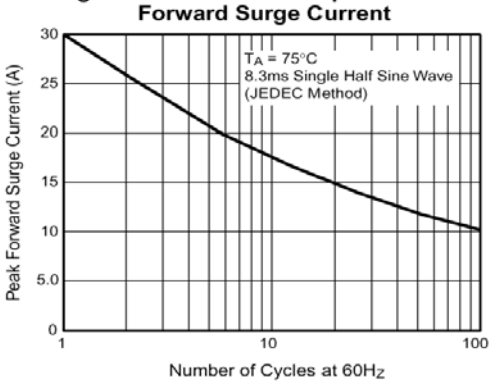


Fig. 3 - Typical Instantaneous Forward Characteristics

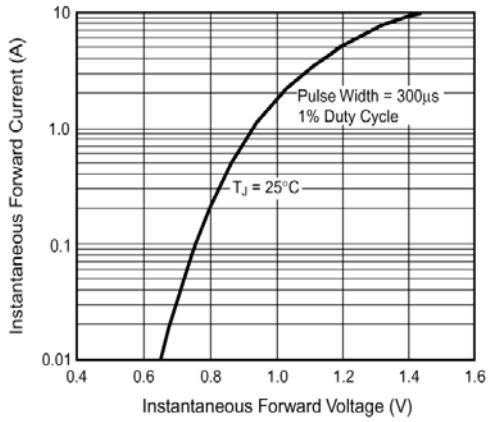


Fig. 4 – Typical Reverse Characteristics

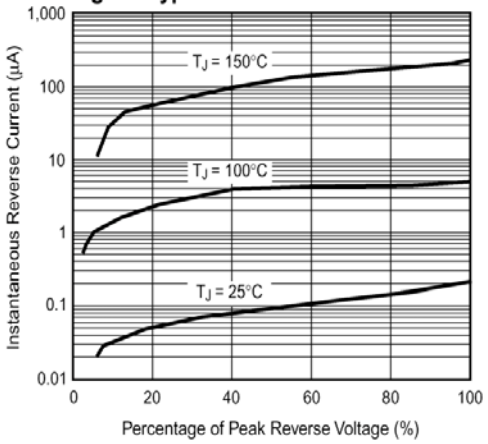


Fig. 5 – Typical Junction Capacitance

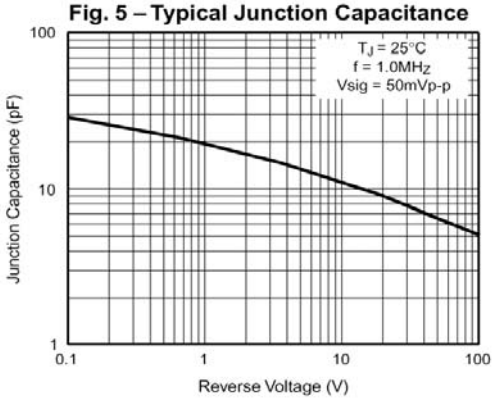


Fig. 6 - Typical Transient Thermal Impedance