

# LL 4001...LL 4007

## SURFACE MOUNT GLASS PASSIVATED RECTIFIERS

**Voltage Range – 50 to 1000 Volts**

**Current – 1.0 Ampere**

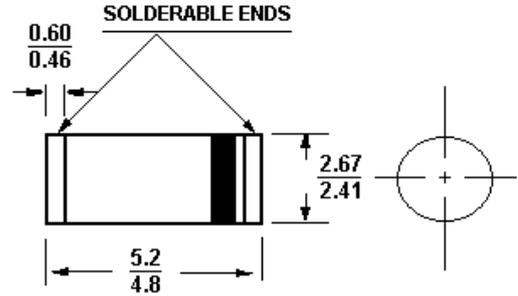
### Features

- Low cost
- Glass passivated device
- Ideal for surface mounted applications
- Low leakage current

### Mechanical data

- **Case:** molded plastic
- **Mounting position:** any

LL-41



MELF

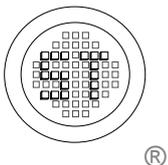
Dimensions in mm

### Absolute Maximum Ratings and Electrical characteristics ( $T_a = 25^\circ\text{C}$ )

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

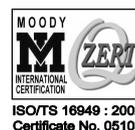
	Symbols	LL4001	LL4002	LL4003	LL4004	LL4005	LL4006	LL4007	Units
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at $T_A = 75^\circ\text{C}$	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							A
Maximum forward voltage at 1A	$V_F$	1.1							V
Maximum full load reverse current Full cycle average	$I_{R(AV)}$	30							$\mu\text{A}$
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$
Typical junction capacitance (Note 1)	$C_J$	15							pF
Maximum thermal resistance	$R_{\theta JL}$ (Note2) $R_{\theta JA}$ (Note3)	20 50							$^\circ\text{C}/\text{W}$
Operating and storage temperature range	$T_J, T_S$	-65 to + 150							$^\circ\text{C}$

- Notes: (1) Measured at 1MHz and applied reverse voltage of 4 volts D.C  
 (2) Thermal resistance from junction to terminal 6.0mm<sup>3</sup> copper pads to each terminal  
 (3) Thermal resistance junction to terminal 6.0mm<sup>3</sup> copper pads to each terminal



**SEMTECH ELECTRONICS LTD.**

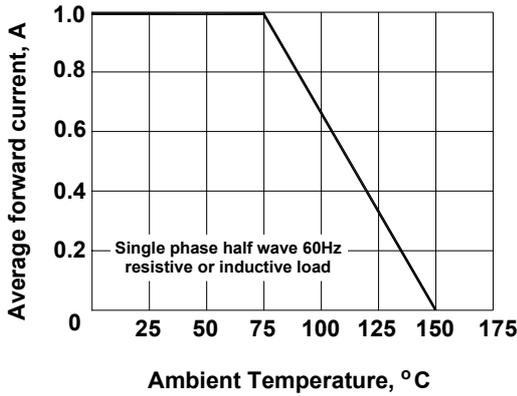
(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



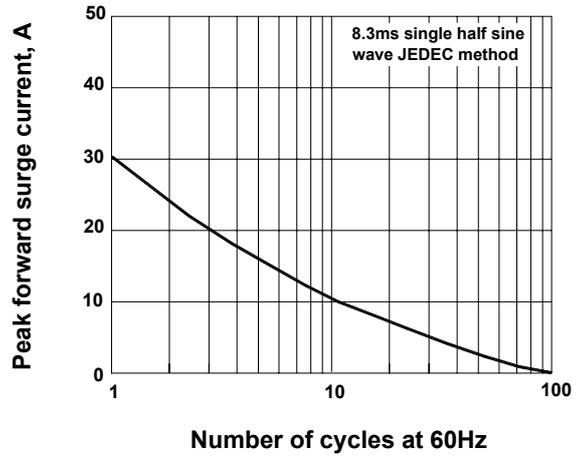
Dated : 18/09/2003

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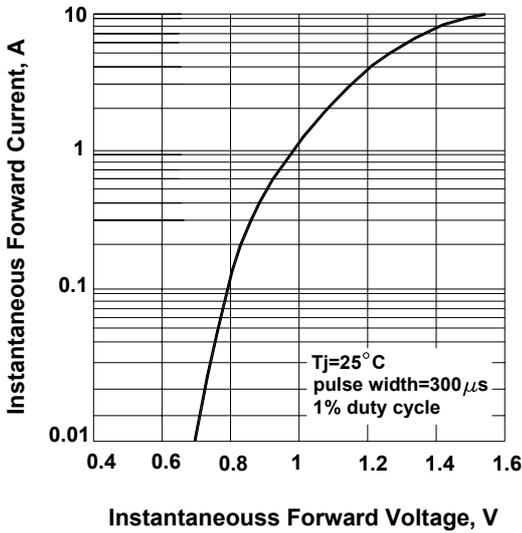
Typical forward current derating curve



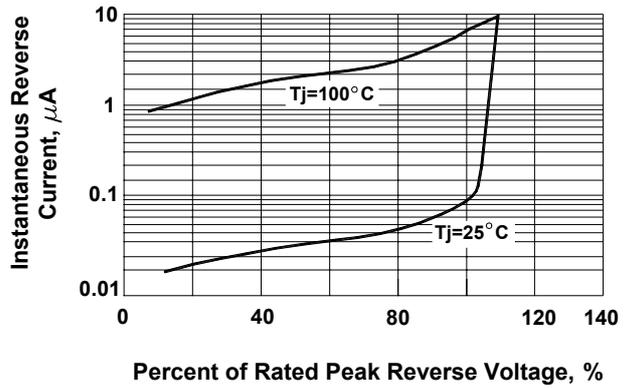
Maximum non-repetitive forward surge current



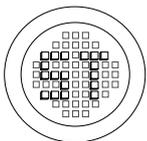
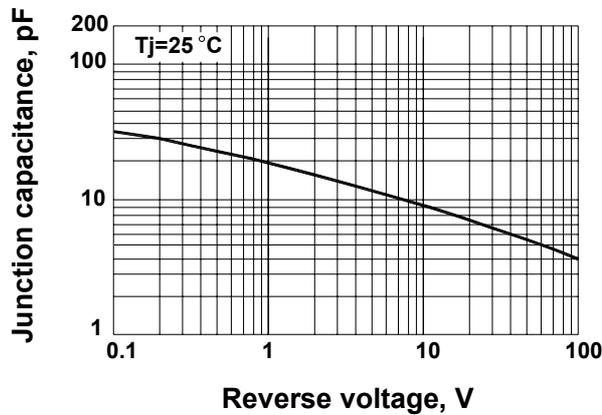
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical junction capacitance



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ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506098

Dated : 18/09/2003