

LL 4001...LL 4007

SURFACE MOUNT GLASS PASSIVATED RECTIFIERS

Voltage Range – 50 to 1000 Volts

Current – 1.0 Ampere

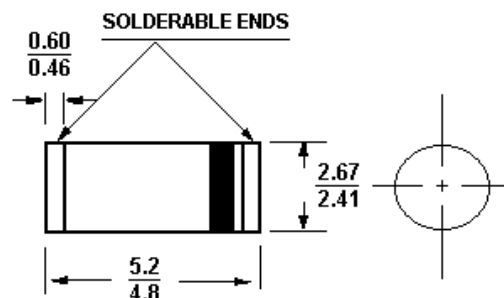
Features

- 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 ($T_a = 25^\circ\text{C}$)

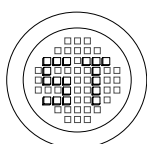
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	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							μA
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	I_R	5 50							μA
Typical junction capacitance (Note 1)	C_J	15							pF
Maximum thermal resistance	$R_{\theta JL}(\text{Note2})$ $R_{\theta JA}(\text{Note3})$	20 50							$^\circ\text{C/W}$
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 6.0mm³ copper pads to each terminal

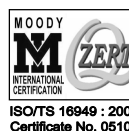
(3) Thermal resistance junction to terminal 6.0mm³ copper pads to each terminal



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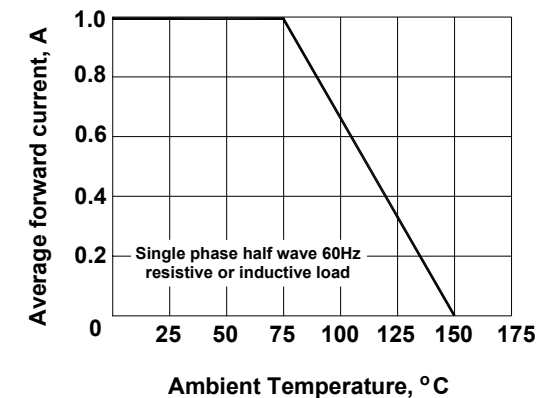
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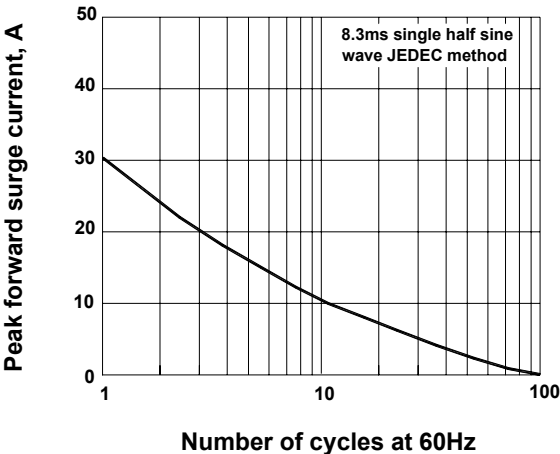


Dated : 18/09/2003

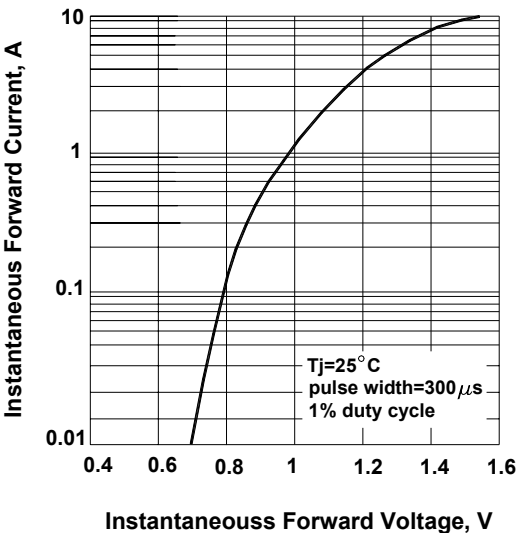
Typical forward current derating curve



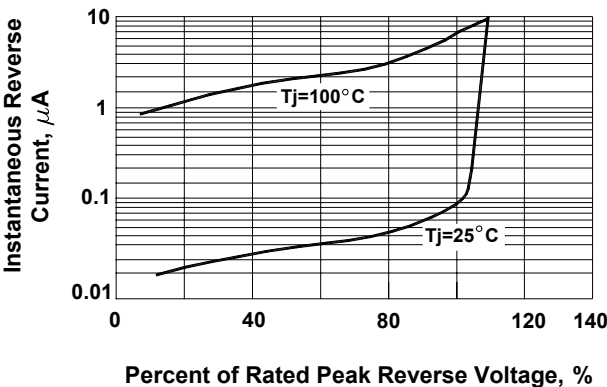
Maximum non-repetitive forward surge current



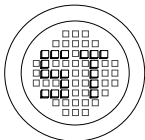
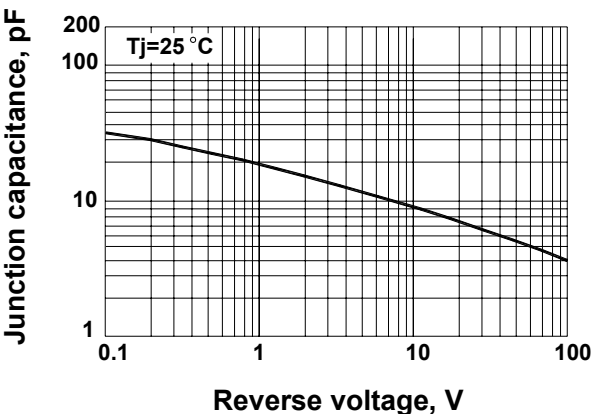
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical junction capacitance



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