

LL4001...LL4007

SURFACE MOUNT SILICON RECTIFIERS

Voltage Range - 50 to 1000 V

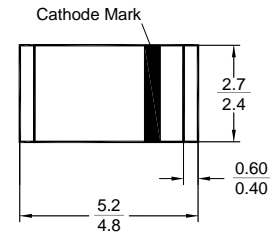
Forward Current - 1 A

Features

- Low cost
- Ideal for surface mounted applications
- Low leakage current

Mechanical data

- **Case:** MELF (DO-213AB) molded plastic body
- **Mounting position:** any



Plastic case MELF (DO-213AB)
Dimensions in mm

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

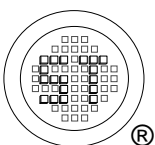
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	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 $T_a = 75^\circ\text{C}$	$I_{F(AV)}$	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 DC Reverse Current at Rated DC Blocking Voltage	I_R	5 200							μA
Typical Junction Capacitance ¹⁾	C_J	15							pF
Maximum Thermal Resistance	$R_{\theta JL}$ ²⁾ $R_{\theta JA}$ ³⁾	20 50							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150							$^\circ\text{C}$

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

²⁾ Thermal resistance from junction to terminal 6.0 mm³ copper pads to each terminal

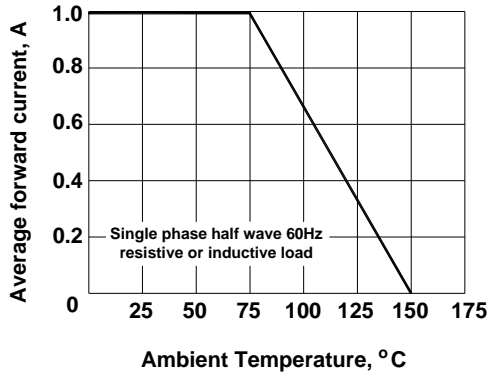
³⁾ Thermal resistance junction to terminal 6.0 mm³ copper pads to each terminal



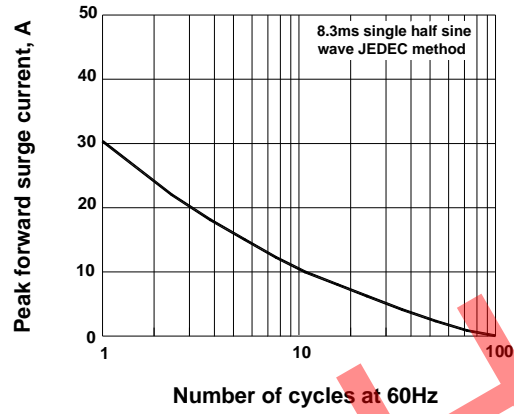
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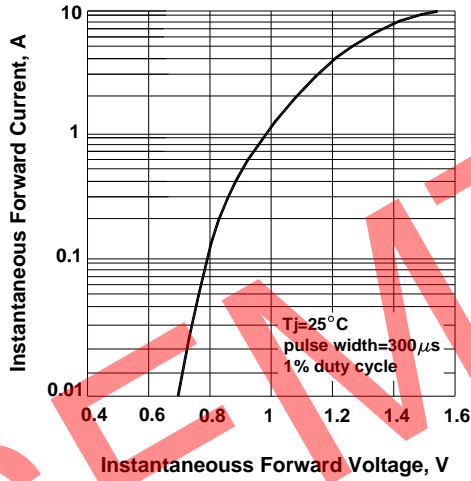
Typical forward current derating curve



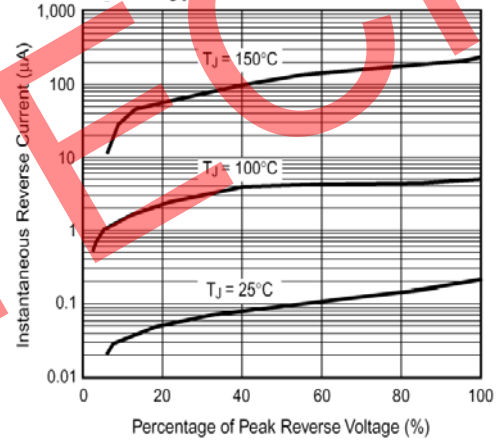
Maximum non-repetitive forward surge current



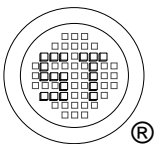
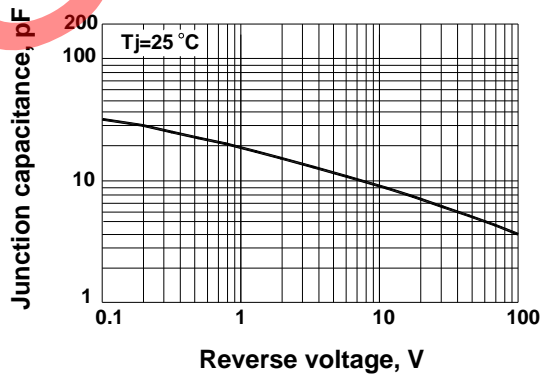
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical junction capacitance



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