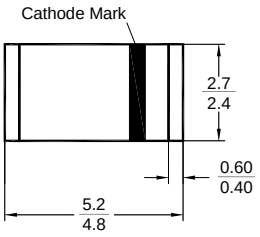
LL4001---LL4007

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



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

Mechanical data

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

Absolute Maximum Ratings and Electrical characteristics (T_a = 25 °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 °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 Full Load Reverse Current (Full Cycle Average)	$I_{R(AV)}$	30							µA
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 25 °C T_A = 125 °C	I_R	5 50							µA
Typical Junction Capacitance [1]	C_J	15							pF
Maximum Thermal Resistance	$R_{\theta JL}$ [2] $R_{\theta JA}$ [3]	20 50							°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150							°C

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

[2] Thermal resistance from junction to terminal 6.0 mm^3 copper pads to each terminal

[3] Thermal resistance junction to terminal 6.0 mm^3 copper pads to each terminal

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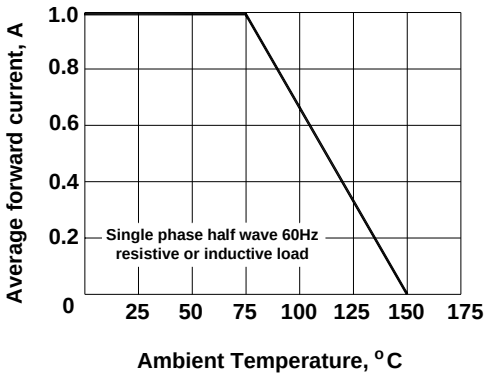
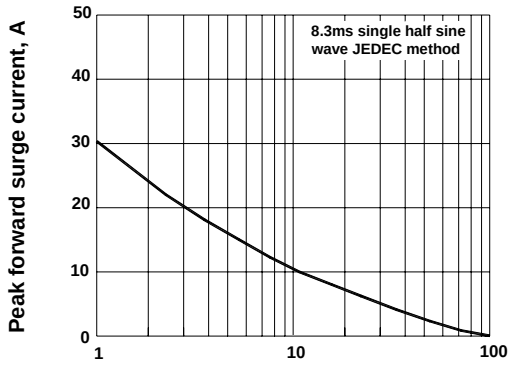
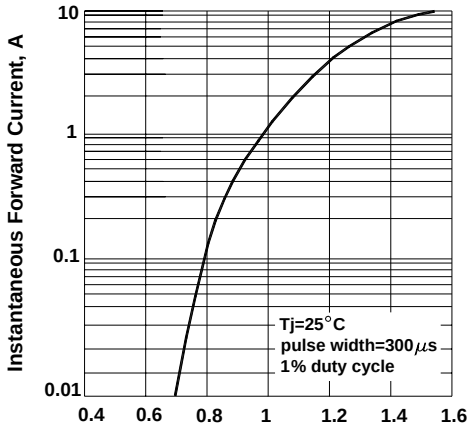
Typical forward current derating curve



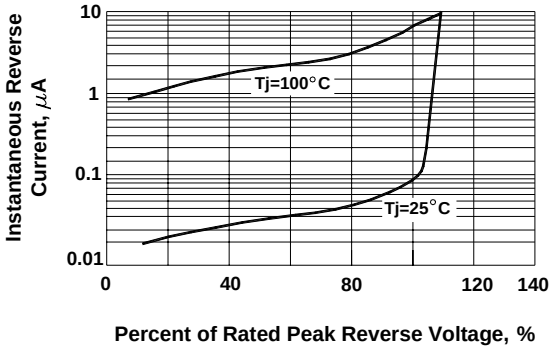
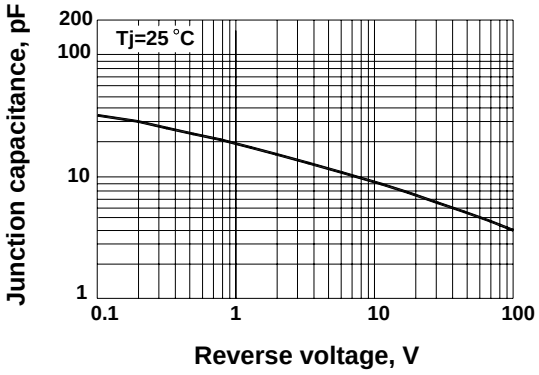
Maximum non-repetitive forward surge current



Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical junction capacitance