DEC

STANDARD RECTIFIER

LL4001 THRU LL4007

CURRENT 1.0 A
VOLTAGE 50 to 1000 V

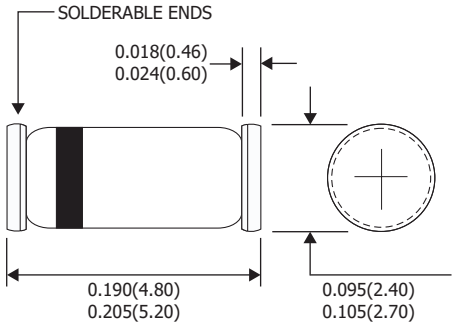
Features

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Glass passivated junction
- High temperature soldering guaranteed: 250°C/10 seconds, at terminals

Mechanical Data

- Case : JEDEC MELF(LL-41) molded plastic body
- Terminals : Lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.0041 ounce, 0.116 gram

MELF(LL-41)



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

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

Items		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℃		$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	30							A
Maximum instantaneous forward voltage at 1.0A		V_F	1.1							V
Maximum reverse current at rated DC blocking voltage	T_A=25℃	I_R	5.0							μA
	T_A=125℃		50							
Typical thermal resistance	(Note 2)	$R_{\theta JA}$	75							℃/W
	(Note 3)	$R_{\theta JL}$	30							
Typical junction capacitance (Note 1)		C_J	15							pF
Maximum DC blocking voltage temperature		T_A	+150							℃
Operating junction and storage temperature range		T_J, T_{STG}	-65 to +150							℃

Notes :
(1) Measured at 1MHz and applied reverse voltage of 4.0V DC.
(2) Thermal resistance from junction to ambient, 0.24×0.24"(6.0×6.0mm) copper pads to each terminals
(3) Thermal resistance from junction to terminals, 0.24×0.24"(6.0×6.0mm) copper pads to each terminals

RATINGS AND CHARACTERISTIC CURVES LL4001 THRU LL4007

FIG.1-FORWARD CURRENT DERATING CURVE

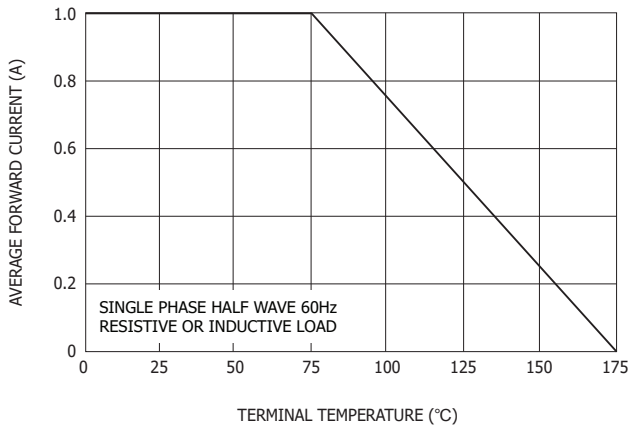


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

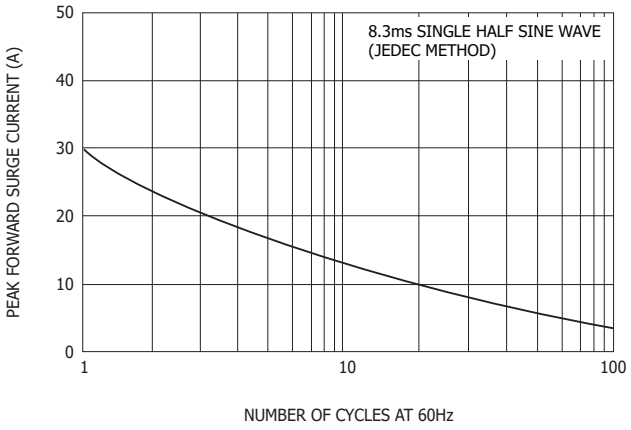


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

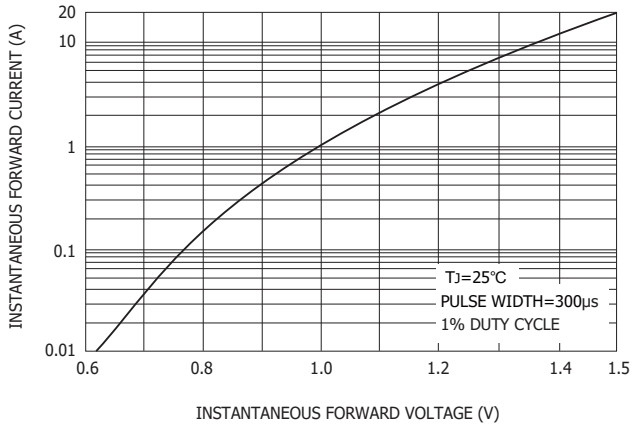


FIG.4-TYPICAL REVERSE CHARACTERISTICS

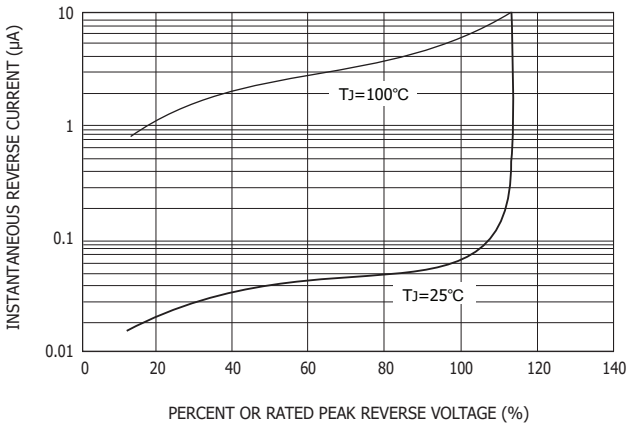


FIG.5-TYPICAL JUNCTION CAPACITANCE