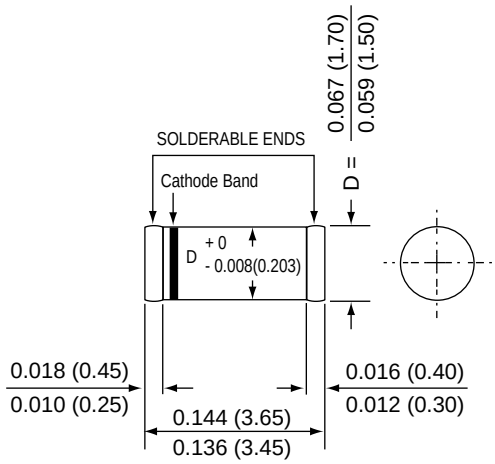
LL4001 THRU LL4007

SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 1000 Volts *Forward Current - 1.0 Ampere*

MINI-MELF(DO-213AA)



*Dimensions in inches and (millimeters)

FEATURES

* GPRC (Glass Passivated Rectifier Chip) inside
* Glass passivated cavity-free junction
* The plasitc package carries underwrites laboratory Flammability classification 94V-0
* For surface mounted application

MECHANICAL DATA

Case : JEDEC MELF(DO-213AA) molded plastic
Terminals : Tin plated, solderable per MIL-STD-750, Method 2026
Polarity : Color band denotes cathode end
Mounting Position : Any
Weight : 0.033 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	*SYMBOLS*	***LL4001***	***LL4002***	***LL4003***	***LL4004***	***LL4005***	***LL4006***	***LL4007***	*UNITS*
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current T_A = 75°C	I (AV)	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							Amps
Maximum instantaneous forward voltage at 1.0 A	V_F	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25°C / T_A=125°C	I_R	5 / 50							uA
Maximum reverse recovery time (NOTE 1)	trr	2000							nS
Typical junction capacitance (NOTE 2)	C_J	15							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$ / $R_{\theta JL}$	75 / 30							°C / W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +175							°C

NOTES : (1) Reverse recovery test condition : I_F 0.5A, I_R=1.0A, Irr=0.25A
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
(3) Thermal resistance from junction to ambient, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminals

RATINGS AND CHARACTERISTIC CURVES LL4001 THRU LL4007

FIG.1 - FORWARD CURRENT DERATING CURVE

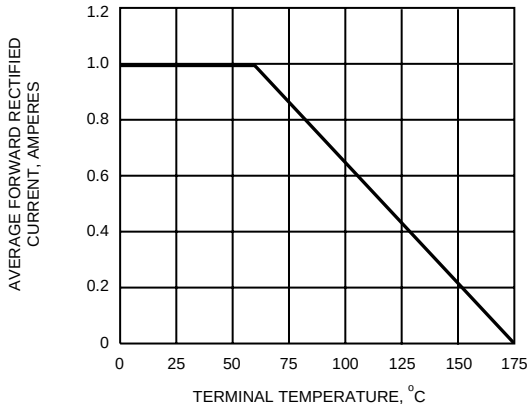


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

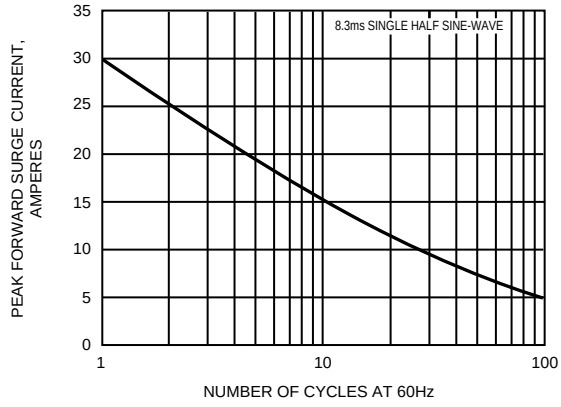


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

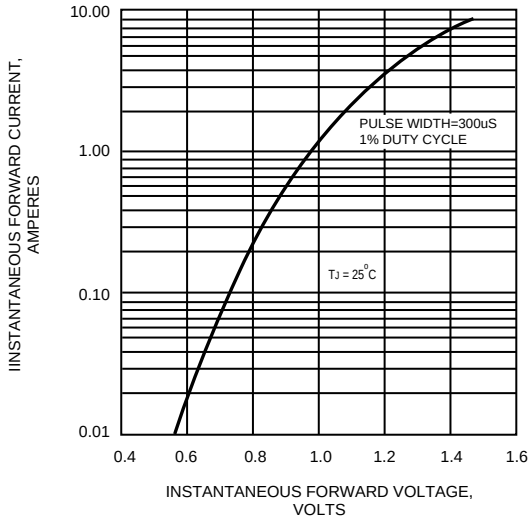


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

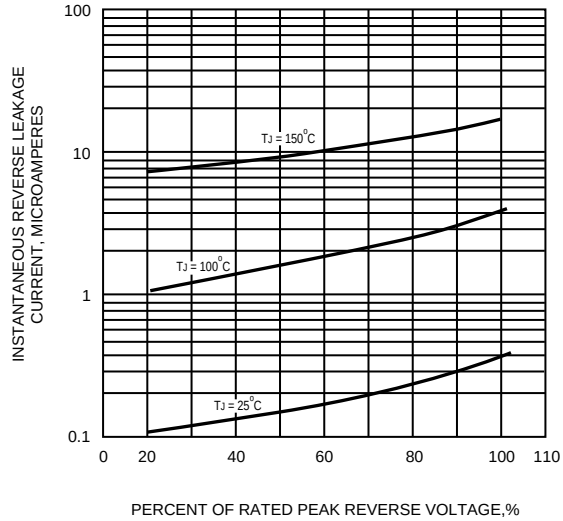


FIG.5 - TYPICAL JUNCTION CAPACITANCE