Surface Mount Rectifier

RoHS Compliant

Features:

- Plastic package has UL Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- For surface mounted applications
- High temperature : 250°C/10 seconds at terminals.

Mechanical Data:

Case	: JEDEC Mini MELF(DO-213AA) molded plastic body
Terminals	: Solder plated,solderable per MIL-STD-750,method 2026
Polarity	: Colour band denotes cathode end
Mounting Position	: Any
Weight	: 0.0005 ounce, 0.015 gram
Reverse Voltage	: 50 to 1000 Volts
Forward Current	: 1 Ampere

Maximum Ratings and Electrical Characteristics:

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

Characteristics	Symbol	LL4001G	LL4002G	LL4004G	LL4007G	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	50	100	400	1000	V
Max. RMS Voltage	V_{RMS}	35	70	280	700	
Max. DC Blocking Voltage	V_{DC}	50	100	400	1000	
Max. Average Forward Rectified Current 0.375" (9.5mm) lead length at T_A = 75°C	$I_{(AV)}$	1				A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave T_A = 75°C	I_{FSM}	25				
Max. Instantaneous Forward Voltage at 1A	V_F	1.1				V
Max. DC Reverse Current at T_A = 25°C at Rated DC Blocking Voltage at T_A = 125°C	I_R	5 100				μA
Typical Junction Capacitance (Note 1)	C_J	15				pF
Typical Thermal Resistance (Note 2) (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	75 30				°C/W
Operating Temperature Range	T_J	-65 to +175				°C
Storage Temperature Range	T_{STG}	-65 to +175				°C

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
2. Thermal resistance from junction to ambient, 0.24×0.24" (6.0×6.0mm) copper pads to each terminal
3. Thermal resistance from junction to terminal, 0.24×0.24" (6.0×6.0mm) copper pads to each terminal
4. The typical data above is for reference only

Ratings and Characteristic Curves

FIG.1 – Forward Current Derating

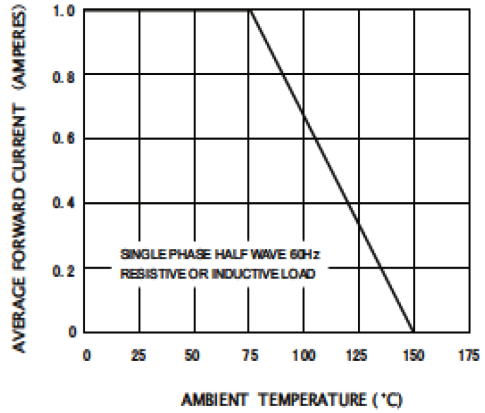


FIG.2 – Typical Instantaneous Forward characteristics

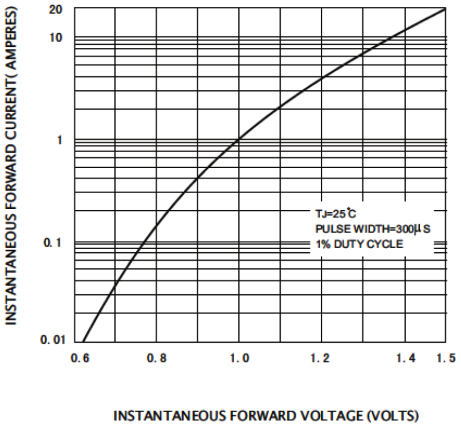


FIG.3 – Maximum Non-Repetitive Peak forward Surge Current

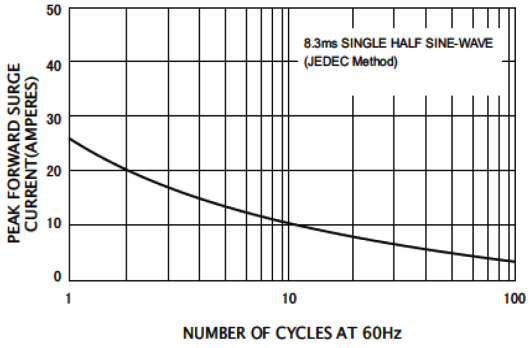


FIG.4 – Typical Reverse Characteristics

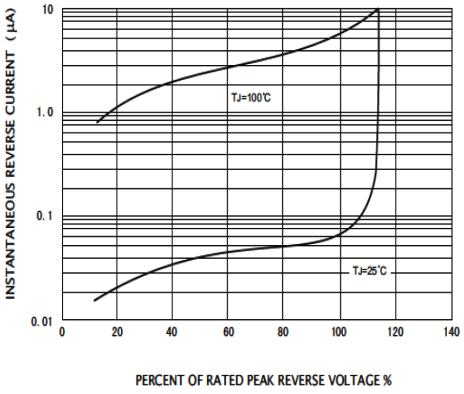
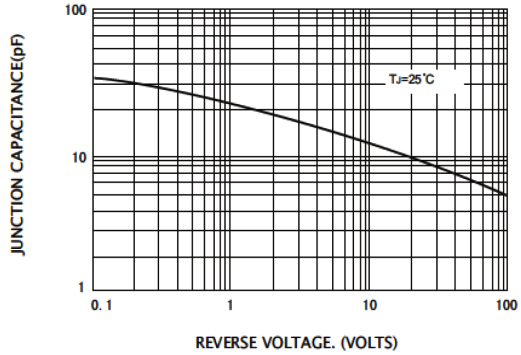
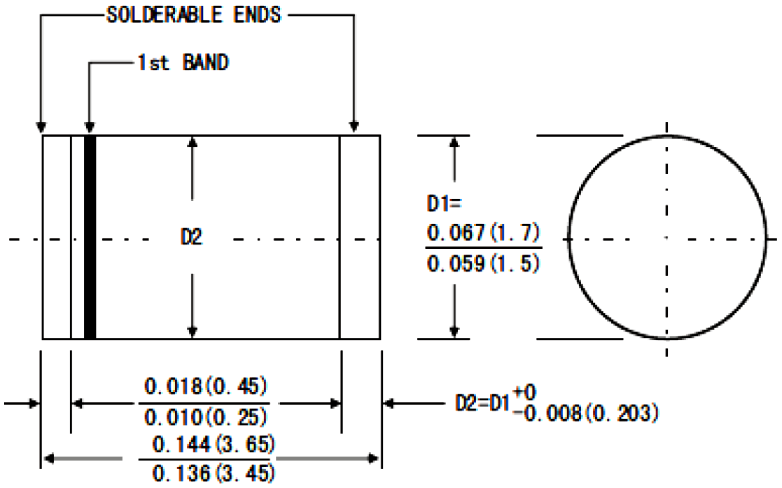


FIG.5 – Typical Junction



MiniMELF (Do-213AA)



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Surface Mount Rectifiers	LL4001G
	LL4002G
	LL4004G
	LL4007G