



# GAL251 thru GAL256

Press Fit Automotive Rectifier (LUCAS)  
Voltage Range 100 to 600Volts Current 25 Amps

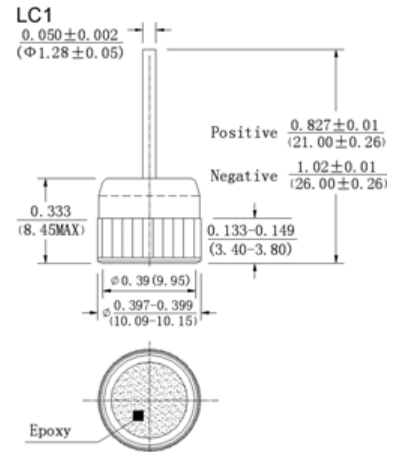
## Technical Specification:

### Features:

- ◆ Low leakage
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High forward surge current capability

### Mechanical Data:

- ◆ Technology: Gpp chip with vacuum soldered
- ◆ Case: Copper case
- ◆ Polarity: As marked of case bottom
- ◆ Lead: Plated lead, solderable per MIL-STD-202E method 208C
- ◆ Mounting: Press Fit
- ◆ Weight: 0.16 ounces, 4.54 grams



Dimensions in inches and (millimeters)

## 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%.

Parameters	Symbols	GAL251	GAL252	GAL253	GAL254	GAL256	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	200	300	400	600	Volts
Maximum RMS voltage	$V_{RMS}$	70	140	210	280	420	Volts
Maximum DC blocking voltage	$V_{DC}$	100	200	300	400	600	Volts
Maximum Average rectified forward current at $T_c = 105^\circ\text{C}$	$I_{AV}$	25					Amps
Peak forward surge current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	300					Amps
Rating for fusing ( $t \leq 8.3\text{ms}$ )	$I_t$	373					A <sup>2</sup> S
Maximum instantaneous forward voltage drop at 100A	$V_F$	1.10					Volts
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$I_R$	5.0 450					$\mu\text{A}$
Typical thermal resistance	$R_{\theta JL}$	0.8					$^\circ\text{C}/\text{W}$
Operating and storage temperature range	$T_J, T_{STG}$	-65 to +175					$^\circ\text{C}$

Notes: 1. Enough heatsink must be considered in application.

## ■ Ratings and Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

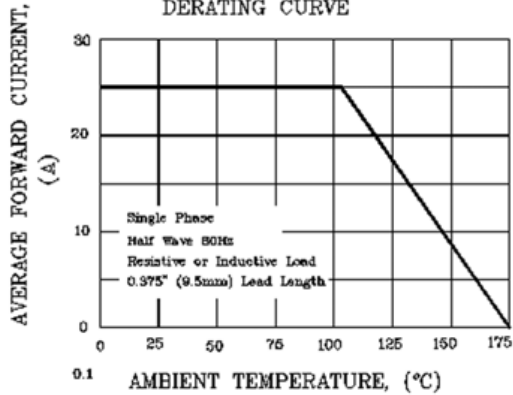


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

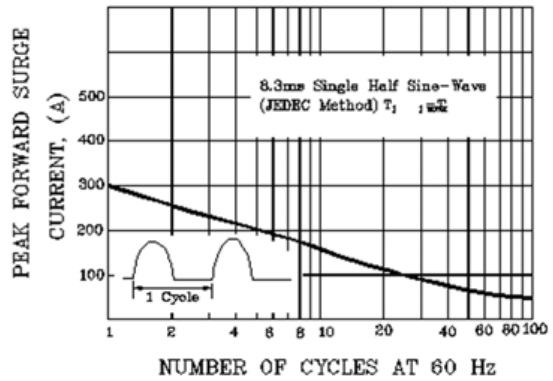


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

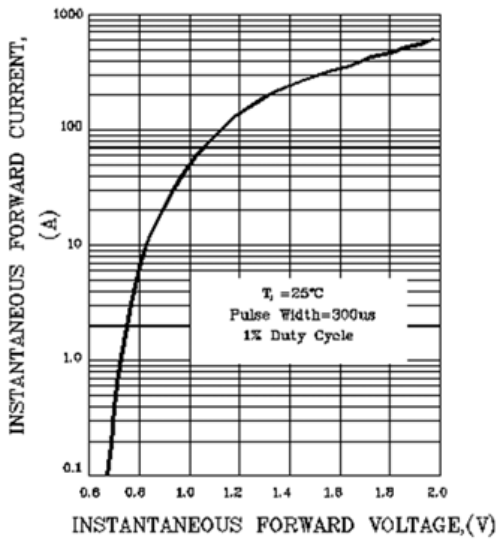


FIG.4- FORWARD POWER DISSIPATION

