

High Voltage Button Diodes For Automotive
Voltage Range 100 to 1200Volts Current 25 Amps

Technical Specification:

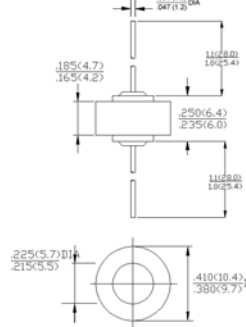
Features:

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

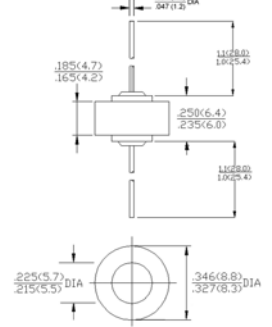
Mechanical Data:

- ◆ Technology: Button with vacuum soldered.
- ◆ Case: Transfer molded plastic.
- ◆ Polarity: Color ring denotes cathode.
- ◆ Lead: Plated lead, solderable per MIL-STD-202E method 208C
- ◆ Mounting position: Any
- ◆ Weight: 0.13 ounces, 3.68 grams

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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	GARL2501 GARSL2501	GARL2502 GARSL2502	GARL2504 GARSL2504	GARL2506 GARSL2506	GARL2508 GARSL2508	GARL2510 GARSL2510	GARL2512 GARSL2512	Units
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	400	600	800	1000	1200	Volts
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	840	Volts
Maximum DC blocking voltage	V_{DC}	100	200	400	600	800	1000	1200	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<8.3mS)	I^2t					374			A ² S
Maximum instantaneous forward voltage drop at 35A	V_F					1.10			Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_C=150^\circ\text{C}$	I_R					5.0 0.5			μA mA
Typical thermal resistance	$R_{\theta JL}$					1.0			$^\circ\text{C}/\text{W}$
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

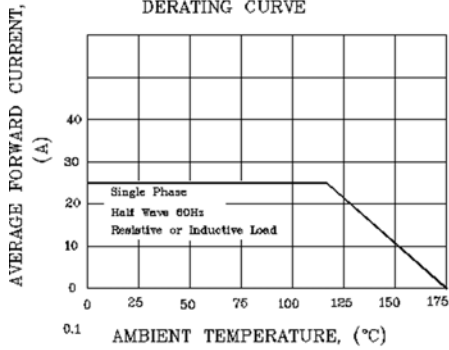
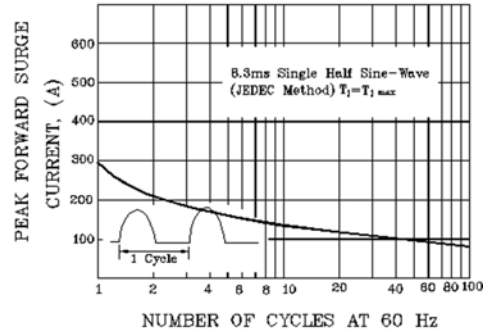


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

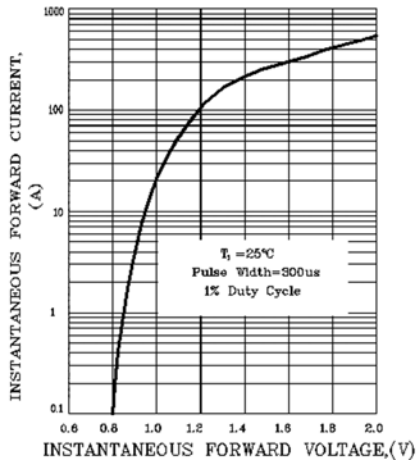


FIG.4- FORWARD POWER DISSIPATION

