



GAH301 thru GAH304

Press Fit Automotive Rectifier (HITACHI)
Voltage Range 100 to 400Volts Current 30 Amps

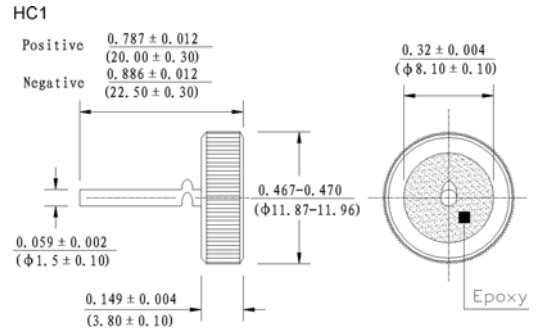
Technical Specification:

Features:

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

Mechanical Data:

- ◆ Technology: Vacuum soldered
- ◆ Case: Copper case
- ◆ Glass passivated chip
- ◆ Polarity: As marked of case bottom
- ◆ Lead: Plated Ni lead, solderable per MIL-STD-202E method 208C
- ◆ Mounting: Press Fit
- ◆ Weight: 0.11 ounces, 3.15 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	GAH301	GAH302	GAH303	GAH304	Units
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	300	400	Volts
Maximum RMS voltage	V_{RMS}	70	140	210	280	Volts
Maximum DC blocking voltage	V_{DC}	100	200	300	400	Volts
Maximum Average rectified forward current at $T_c=105^\circ\text{C}$	I_o	30				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400				Amps
Rating for fusing (t=8.3ms)	I_t	664				A ² S
Maximum instantaneous forward voltage drop at 100A	V_F	1.10				Volts
Maximum DC reverse current at rated DC blocking voltage	I_R				5.0 450	μA
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

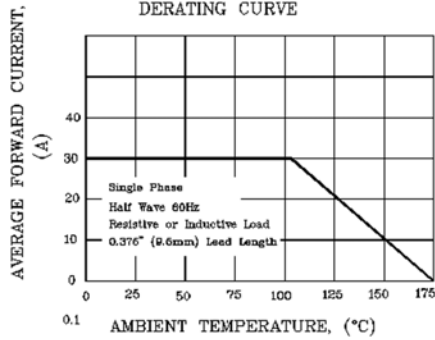


FIG.2—MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

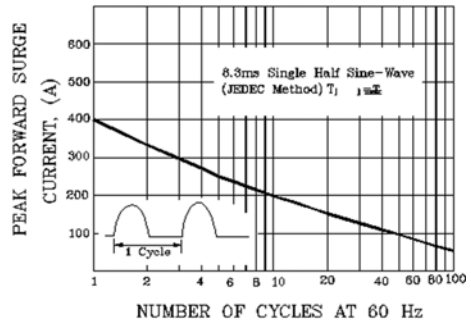


FIG.3—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

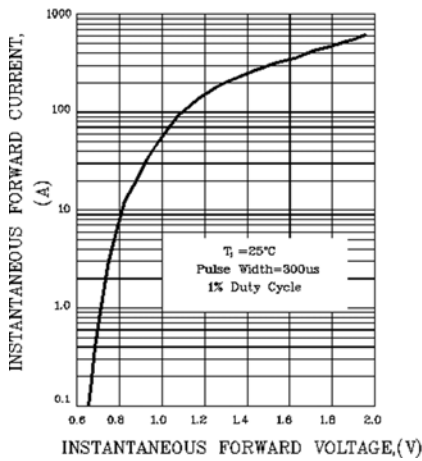


FIG.4— FORWARD POWER DISSIPATION

