



GAB501 thru GAB506

Press Fit Automotive Rectifier
Voltage Range 100 to 600Volts Current 50 Amps

Technical Specification:

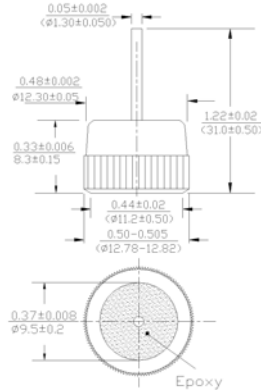
Features:

- ◆ 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 lead, solderable per MIL-STD-202E method 208C
- ◆ Mounting: Press Fit
- ◆ Weight: 0.28 ounces, 8.05 grams

BC1 Lead Negative/Positive



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	GAB501	GAB502	GAB503	GAB504	GAB506	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 $T_C=105^\circ\text{C}$	$I_{(AV)}$	50					Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	500					Amps
Rating for fusing ($t < 8.3\text{mS}$)	I^2t	1038					A^2S
Maximum instantaneous forward voltage drop at 100A	V_F	1.08					Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_C=150^\circ\text{C}$	I_R	5.0 450					μA
Typical thermal resistance	$R_{\theta JL}$	0.8					$^\circ\text{C/W}$
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

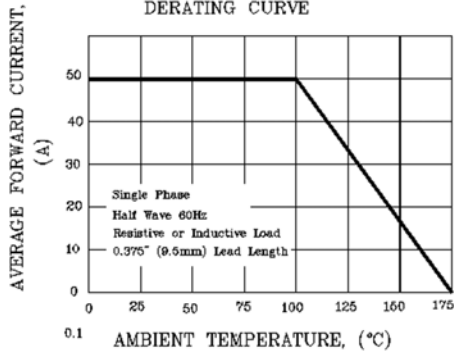


FIG.2—MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

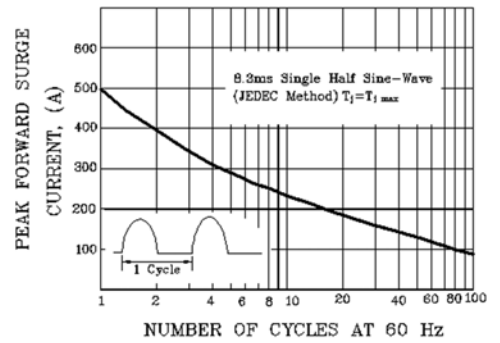


FIG.3—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

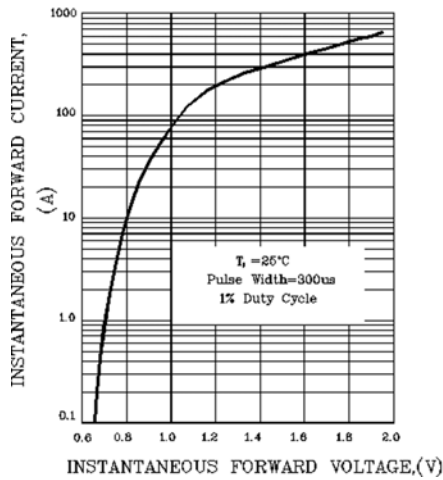


FIG.4— FORWARD POWER DISSIPATION

