

## Technical Specification:

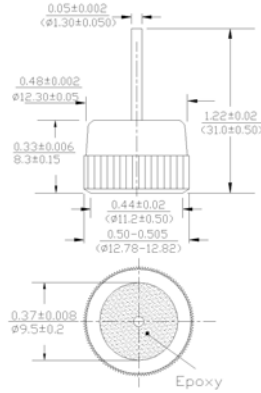
### Features:

- ◆ 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					$\text{A}^2\text{S}$
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					$\mu\text{A}$
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

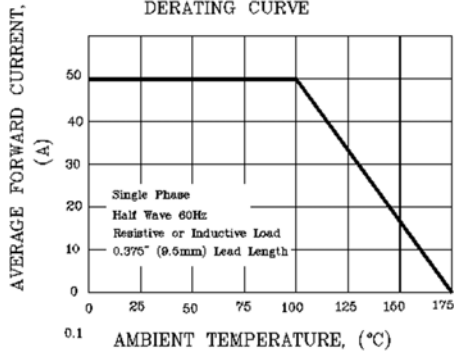


FIG.2—MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

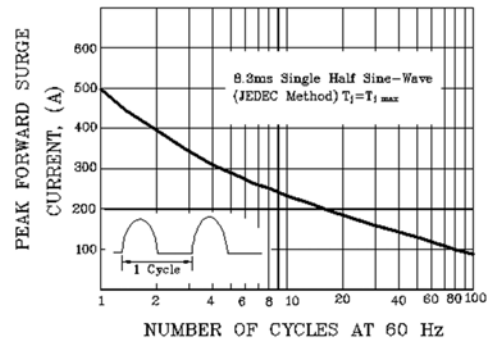


FIG.3—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

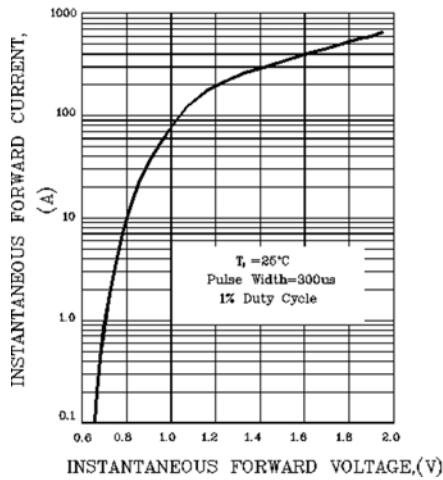


FIG.4— FORWARD POWER DISSIPATION

