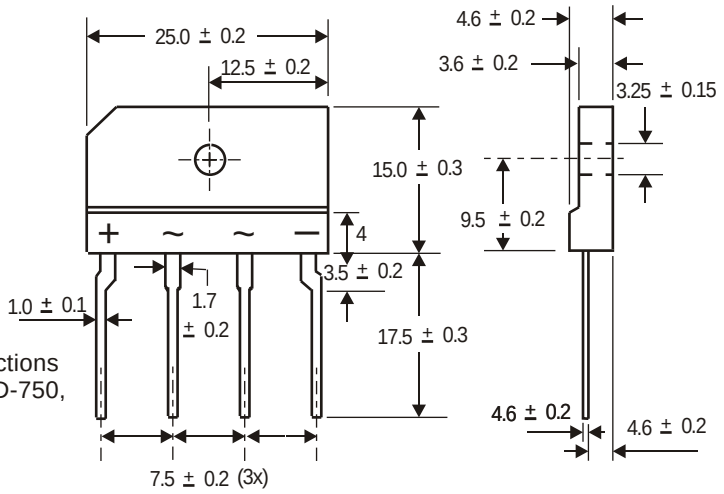
GBJ8005 thru GBJ810

8.0 A Single-Phase Silicon Bridge Rectifier

Rectifier Reverse Voltage 50 to 1000V

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High case dielectric strength of 1500VRMS Ideal for printed circuit boards
- High surge current capability



Dimensions in millimeters(1mm =0.0394")

Mechanical Data

Case : Molded plastic body over passivated junctions
Terminals : Plated leads solderable per MIL-STD-750, Method 2026
Polarity : Polarity symbols molded on body
Mounting Position : Any(3)
Mounting Torque : 5 in-lbs max.
Weight : 0.15 ounce, 4.0 grams (approx)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	GBJ 8005	GBJ 801	GBJ 802	GBJ 804	GBJ 806	GBJ 808	GBJ 810	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current Tc =100°C TA =25°C	$I_{F(AV)}$	8.0(1) 2.3(2)							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120							A
Rating for fusing (t<8.3ms)	I^2t	60							A^2sec
Maximum thermal resistance per leg	RejA RejC	2.6(2) 5 (1)							°C / W
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150							℃

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	GBJ 8005	GBJ 801	GBJ 802	GBJ 804	GBJ 806	GBJ 808	GBJ 810	Unit
Maximum instantaneous forward voltage drop per leg at 4.0A	VF	1.1							V
Maximum DC reverse current at rated DC blocking voltage per leg TA =25°C TA =125°C	IR	10 250							μA

Notes: (1)Unit case mounted on Al plate heatsink.
(2)Units mounted on P.C.B. with 0.5x0.5"(12x12mm) copper pads and 0.375"(9.5) lead length.
(3)Recommended mounting position is to bolt down on heat sink with silicone thermal compound for maximum heat transfer with #6 screw.

Rating and Characteristic Curves (TA = 25°C Unless otherwise noted)
GBJ8005 thruGBJ810

Fig. 1 Derating Curve for Output Rectified Current

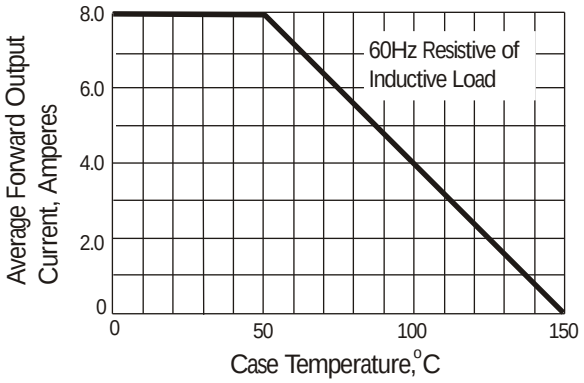


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

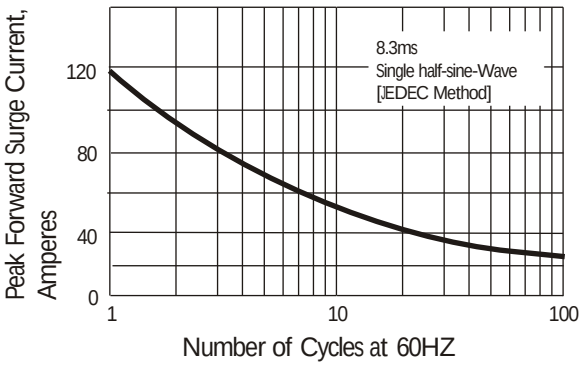


Fig. 3 Typical Instantaneous Forward Characteristics

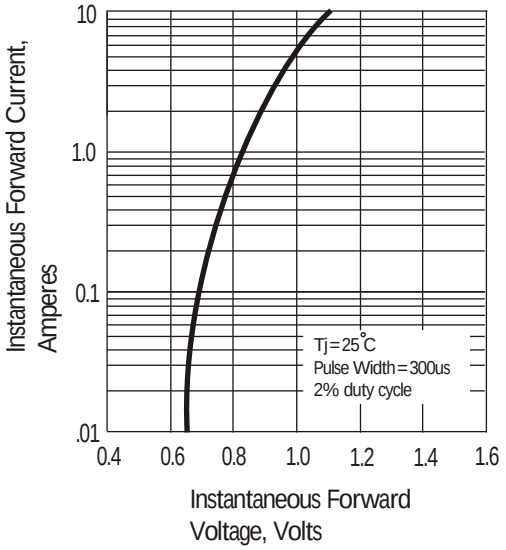


Fig. 4 Typical Reverse Characteristics at Tj=25°C

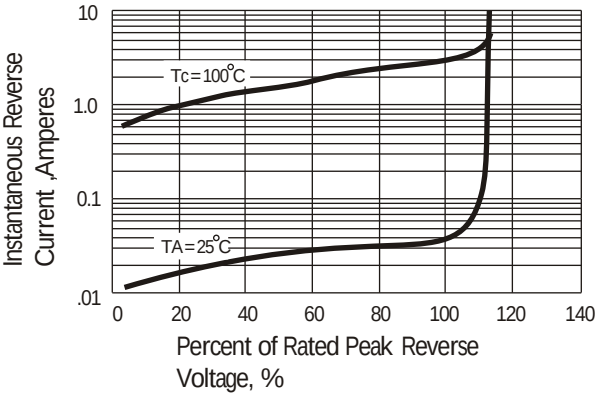


Fig. 5 Typical Junction Capacitance

