



GBL005 THRU GBL10

Single Phase 4.0 AMPS. Glass Passivated Bridge Rectifiers



Voltage Range
50 to 1000 Volts
Current
4.0 Amperes

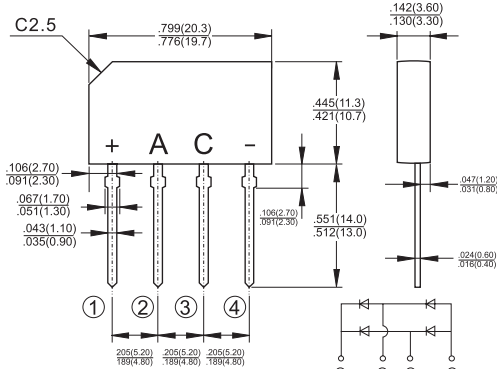
Features

- ✧ Glass passivated chip junction
- ✧ Ideal for printed circuit board
- ✧ High case dielectric strength
- ✧ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ✧ Typical IR less than 0.1 μ A
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed: 260°C / 10 seconds / .375", (9.5mm) lead lengths.

Mechanical Data

- ✧ Case: Molded plastic body.
- ✧ Terminals: Plated leads solderable per MIL-STD-750, Method 2026.
- ✧ Weight: 0.071 ounce, 2.0 grams
- ✧ Mounting position: Any

GBL



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	GBL 005	GBL 01	GBL 02	GBL 04	GBL 06	GBL 08	GBL 10	Units
Maximum Recurrent 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 Current @ $T_C = 50^\circ\text{C}$ (Note 1) @ $T_A = 40^\circ\text{C}$ (Note 2)	$I_{(AV)}$	4.0				3.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) $T_J=150^\circ\text{C}$	I_{FSM}	150							A
Maximum Instantaneous Forward Voltage @ 4.0A	V_F	1.00							V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	5.0				500			μA
Typical Thermal Resistance Per Leg (Note 1) (Note 2)	$R\theta_{JA}$ $R\theta_{JL}$	22				3.5			$^\circ\text{C}/\text{W}$
Typical Junction Capacitance Per Leg at 4.0V, 1MHz	C_j	95				40			pF
Operating Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150							$^\circ\text{C}$

Notes 1. Unit Mounted on 2" x 3" x 0.25" Al. plate.

2. Units Mounted on P.C.B. 0.5" x 0.5" (12x12mm) Copper Pads, 0.375" (9.5mm) Lead Length.

RATINGS AND CHARACTERISTIC CURVES (GBL005 THRU GBL10)

FIG.1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

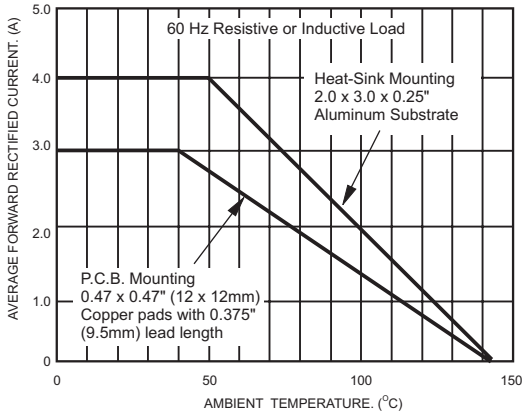


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

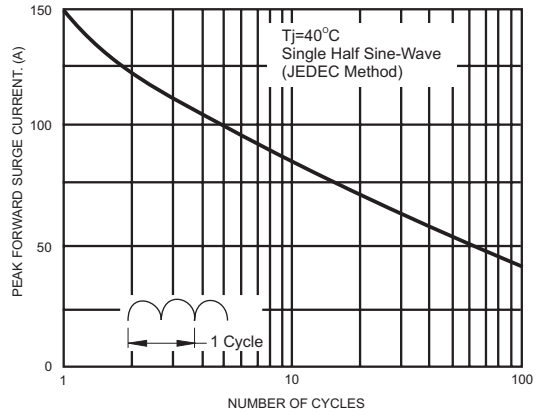


FIG.3- TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG

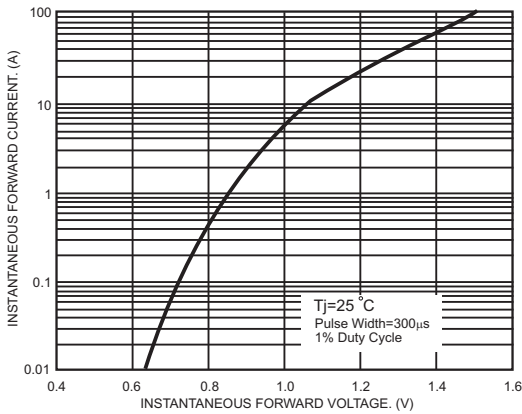


FIG.4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

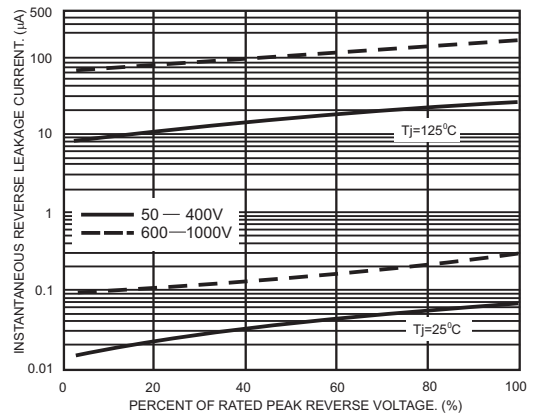


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

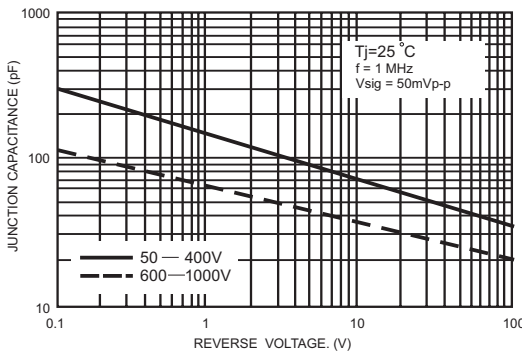


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

