

GBJ15005 THRU GBJ1510



15A GLASS PASSIVATED BRIDGE RECTIFIER

Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500VRMS
- Low Reverse Leakage Current
- Surge Overload Rating to 240A Peak
- Ideal for Printed Circuit Board Applications
- Plastic Material - UL Flammability Classification 94V-0

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Molded on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 in-lbs Maximum
- Weight: 6.6 grams (approx)
- Marking: Type Number

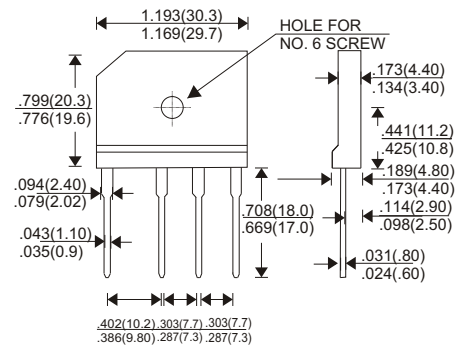
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

15.0 Ampere

GBJ



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	GBJ 15005	GBJ 1501	GBJ 1502	GBJ 1504	GBJ 1506	GBJ 1508	GBJ 1510	UNIT
Maximum Reverse Peak Repetitive Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	100	Volts
Maximum Average Forward Rectified Output Current At $T_C=100^\circ\text{C}$ (Note 1) $T_A=25^\circ\text{C}$ (Note 2)	$I_{(AV)}$	15							Amps
		3.5							
Peak Forward Surge Current single sine wave superimposed on rated load (JEDEC Method)	I_{FSM}	240							Amps
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	240							A^2s
Maximum thermal resistance per leg (Note 2) (Note 1)	R_{JA} R_{JC}	24 1.2							$^\circ\text{C}/\text{W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	(-55 to +150)							$^\circ\text{C}$
Maximum Forward Voltage Drop Per Bridge Element At 7.5A	V_{FM}	1.05							Volts
Maximum DC Reverse Current at rated DC blocking voltage per Leg $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	10 250							μA

- Notes:**
1. Unit mounted on 300mm × 300mm × 1.6mm A1. Plate heatsink
 2. Unit mounted on P.C.B. without heatsink
 3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum Heat transfer with #6 screw

RATING AND CHARACTERISTIC CURVES (GBJ15005 THRU GBJ1510)

FIG. 1- DERATING CURVE
OUTPUT RECTIFIED CURRENT

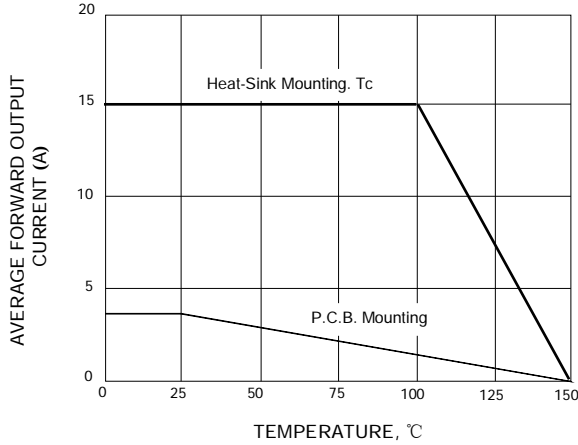


FIG. 2- MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER LEG

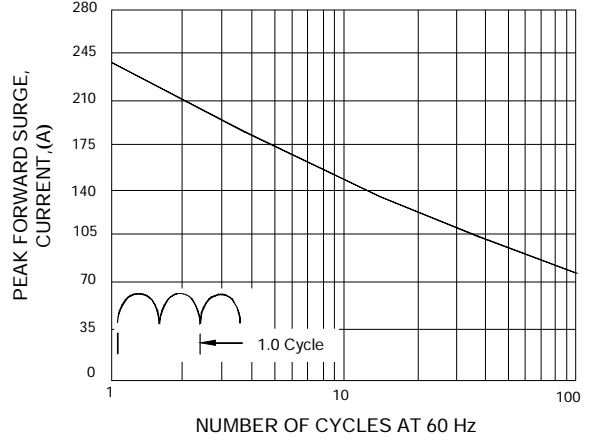


FIG. 3- TYPICAL FORWARD
CHARACTERISTICS PER LEG

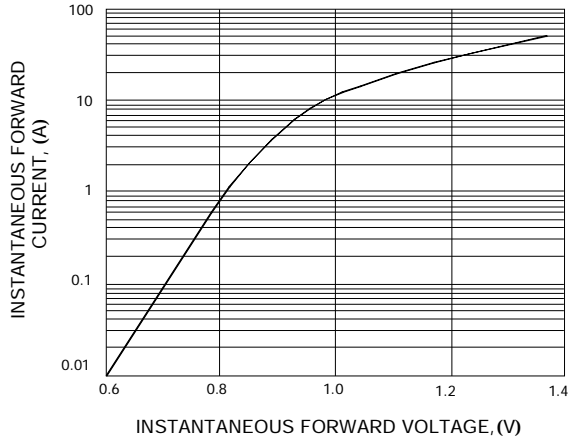


FIG. 4- TYPICAL REVERSE CHARACTERISTICS
PER LEG

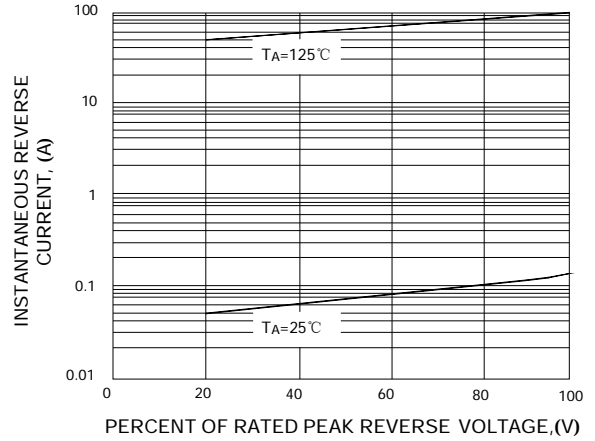


FIG. 5- TYPICAL JUNCTION CAPACITANCE
PER LEG

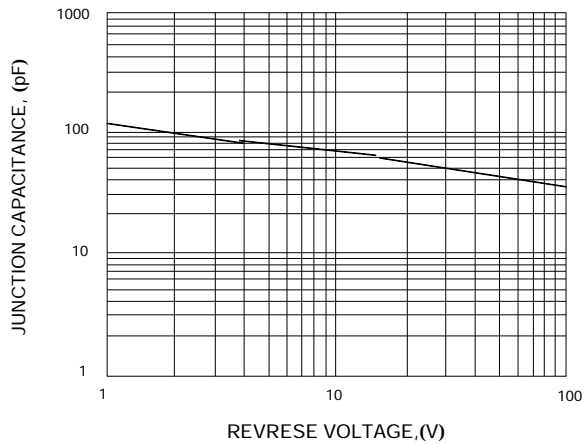


FIG. 6- TYPICAL TRANSIENT THERMAL
IMPEDANCE

