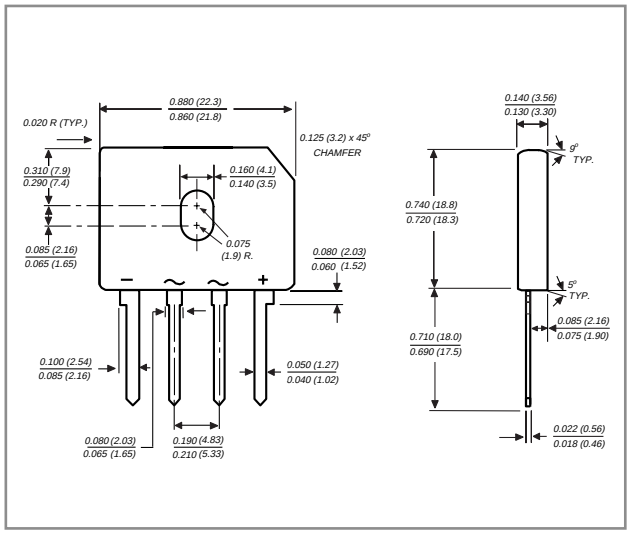
GBU4AG THRU GBU4MG

Glass Passivated Single-Phase Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts

Forward Current - 4.0 Amperes

GBU



Dimensions in inches and (millimeters)

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under the Recognized Component Index, file number E54214
- High case dielectric strength of 1500 V_{RMS}
- Ideal for printed circuit boards
- Glass passivated chip junction
- High surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds, 0.375 (9.5mm) lead length, 5lbs. (2.3kg) tension

Mechanical Data

- **Case:** Molded plastic body over passivated junctions
- **Terminals:** Plated leads solderable per MIL-STD-750, Method 2026
- **Mounting Position:** Any (NOTE 4)
- **Mounting Torque:** 5 in. - lb. max.
- **Weight:** 0.15 ounce, 4.0 grams

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GBU 4AG	GBU 4BG	GBU 4DG	GBU 4G	GBU 4JG	GBU 4KG	GBU 4MG	UNITS
Maximum repetitive peak reverse 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	1000	Volts
Maximum average forward rectified output current at T_C=100°C / T_A=40°C	$I_{(AV)}$	4.0 / 3.0							Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) T_J=150°C	I_{FSM}	150.0							Amps
Rating for fusing (t<8.3ms)	I^2t	93.0							A^2sec
Maximum instantaneous forward voltage drop per leg at 4.0A	V_F	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage per leg T_A=25°C / T_A=125°C	I_R	5.0 / 500.0							µA
Typical junction capacitance per leg	C_J	100.0				45.0			pF
Typical thermal resistance per leg	$R_{\Theta JA}$ / $R_{\Theta JC}$	22.0 / 4.2							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

NOTES:

(1) Unit case mounted on 1.6 x 1.6 x 0.06" thick (4.0 x4.0 x 0.15cm) Al. Plate

(2) Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length

(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(4) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

Rating and characteristic curves

FIG.1 -- DERATING CURVE FOR OUTPUT RRECTIFIED CURRENT

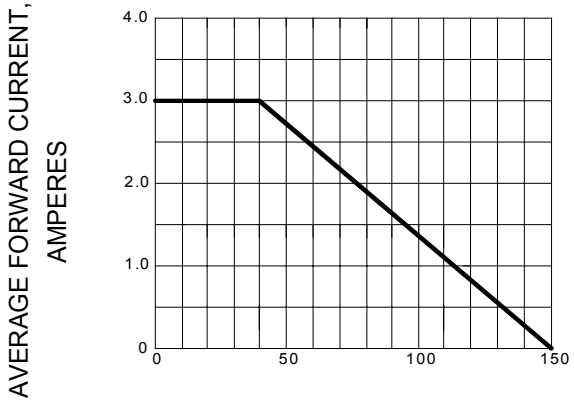


FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

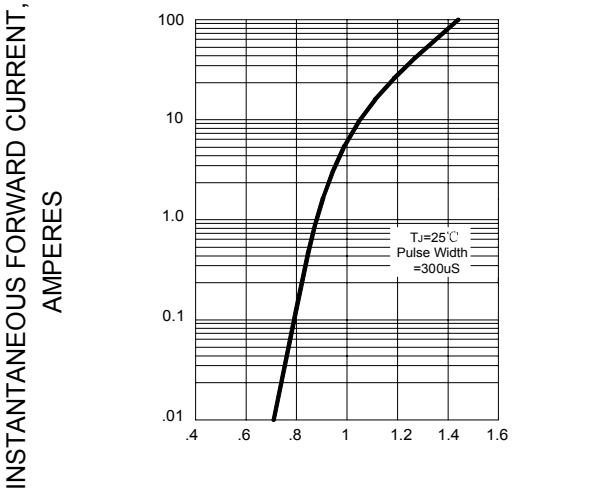


FIG.3 -- MAXIMUM NON-REPETITIVE PEAK FORWARD DURGE CURRENT

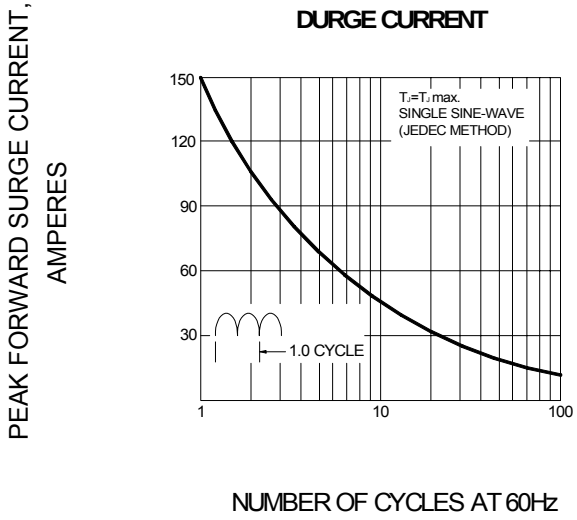


FIG.4 -- TYPICAL REVERSE CHARACTERISTIC

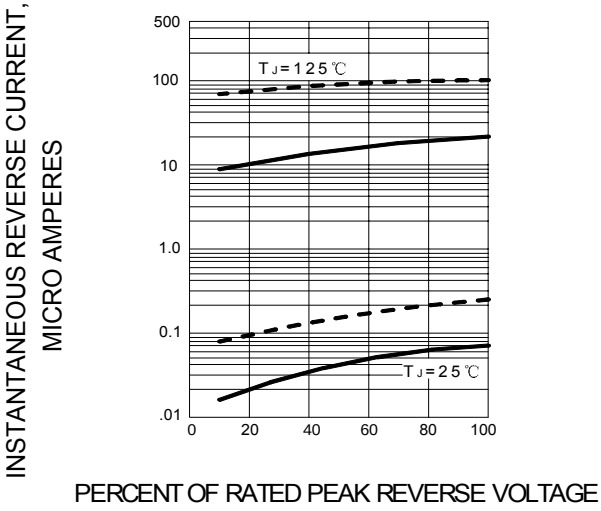


FIG.5 -- TYPICAL JUNCTION CAPACITANCE PER LEG

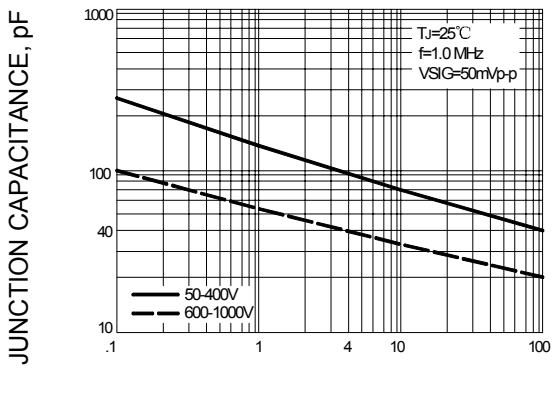


FIG.6 -- TYPICAL TRANSIENT THERMAL IMPEDANCE