GBU4A THRU GBU4M

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V Current: 4.0A

GULF SEMI

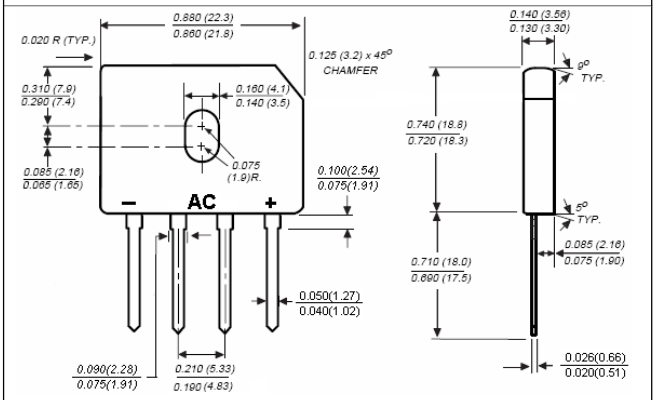
Features

Ideal for printed circuit board
Glass passivated chip junction
High case dielectric strength
High surge current capability
This series is UL listed under Recognized Component Index, file number E185029

Mechanical Data

Terminal: Plated leads solderable per MIL-STD 202E, method 208C
Case: UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity: Polarity symbol marked on body
Mounting position: Thru hole for #6 screw

GBU



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

	Symbol	GBU4A	GBU4B	GBU4D	GBU4G	GBU4J	GBU4K	GBU4M	units
Maximum repetitive peak reverse voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	Vdc	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at Tc = 100℃ (Note 1) Ta = 40℃ (Note 2)	If(av)	4.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	Ifsm	150							A
Maximum instantaneous forward voltage drop per leg at 4.0A	Vf	1.0							V
Rating for fusing (t < 8.3ms)	I^2t	93							A^2Sec
Maximum DC reverse current at Ta = 25℃ rated DC blocking voltage per leg Ta = 125℃	Ir	5.0 500							μA
Typical junction capacitance per leg (Note3)	Cj	100				45			pF
Maximum thermal resistance per leg (Note2) (Note1)	Rth(ja) Rth(jc)	22.0 4.2							℃/W
Operating junction and storage temperature range	Tj, Tstg	-55 to +150							℃

Note:
1. Unit case mounted on 1.6 x 1.6 x 0.06" thick (4.0 x4.0 x 0.15cm) Al. Plate heatsink
2. Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" (9.5mm) lead length
3. Measured at 1.0MHz 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

RATINGS AND CHARACTERISTIC CURVES GBU4A THRU GBU4M

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

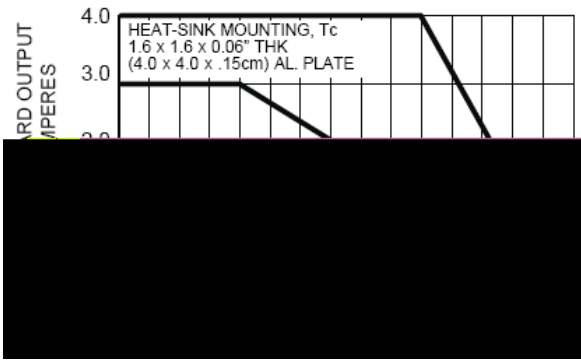


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

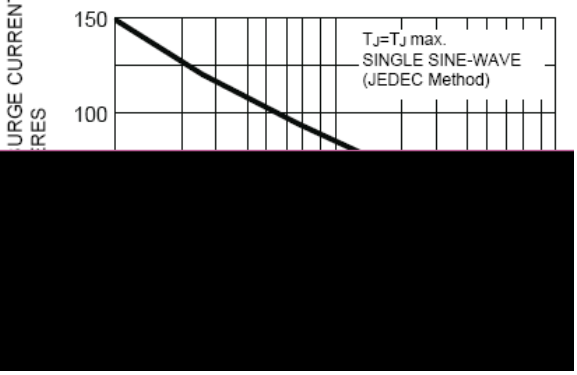


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

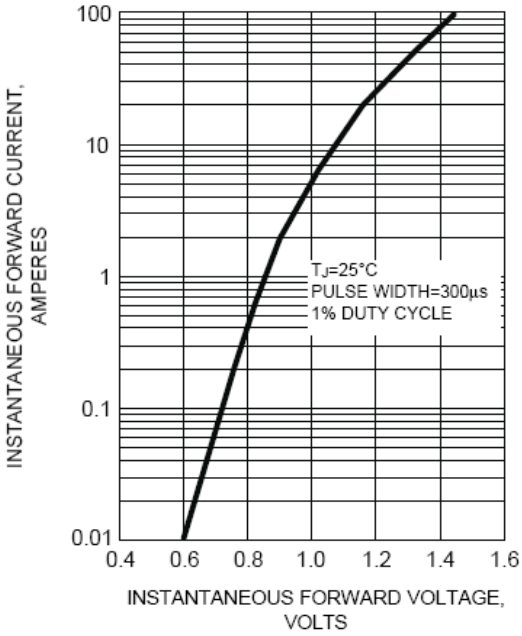


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

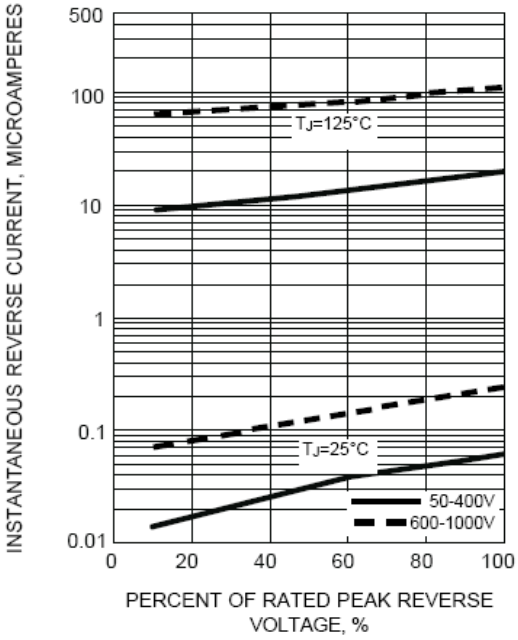


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

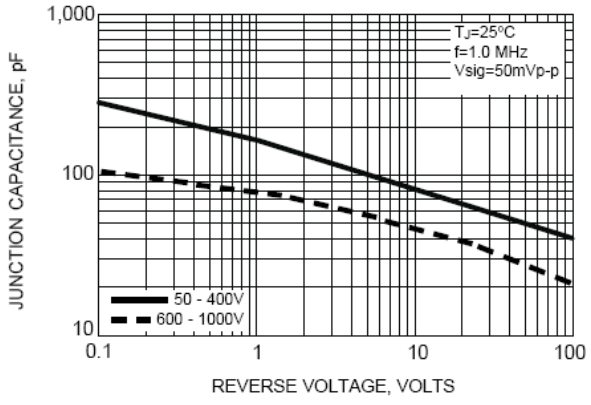


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

