

GBU4A THRU GBU4M

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V

Current: 4.0A

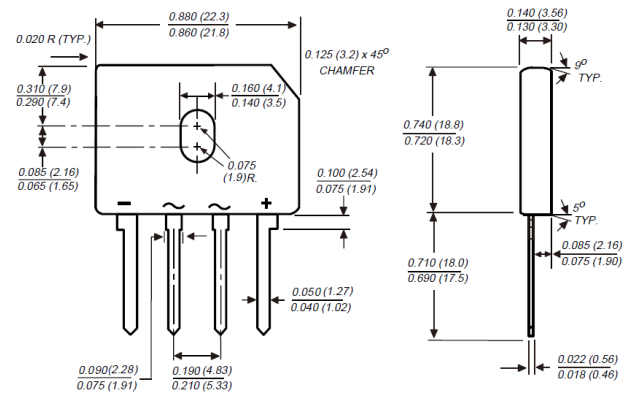
Features

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 E330278

Mechanical Data

Terminal: Plated leads solderable per J-STD-002
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)

	Symbol	GB U4A	GBU 4B	GBU 4D	GBU 4G	GBU 4J	GBU 4K	GBU 4M	units	
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 at T _c = 100°C (Note 1) T _a = 40°C (Note 2)	I _{f(av)}	4.0						3.0		A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I _{fsm}	150								A
Maximum instantaneous forward voltage drop per leg at 4.0A	V _f	1.0								V
Rating for fusing (t < 8.3ms)	I ² t	93								A ² Sec
Maximum DC reverse current at rated DC blocking voltage per leg T _a = 25°C T _a = 125°C	I _r	5.0						500		μA
Typical junction capacitance per leg (Note3)	C _j	100				45			pF	
Maximum thermal resistance per leg (Note2) (Note1)	R _{th(ja)} R _{th(jc)}	22.0						4.2		°C/W
Operating junction and storage temperature range	T _j , T _{stg}	-55 to +150								°C

Note:

1. Unit case mounted on 1.6 x 1.6 x 0.06" thick (4.0 x 4.0 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

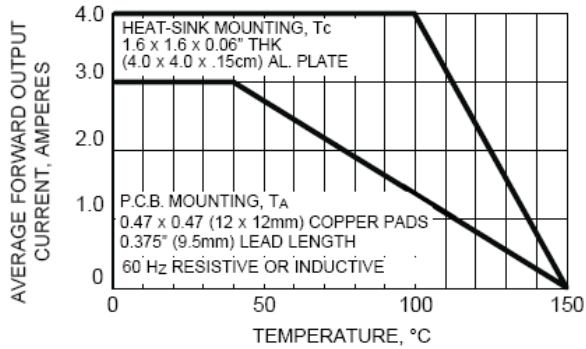


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

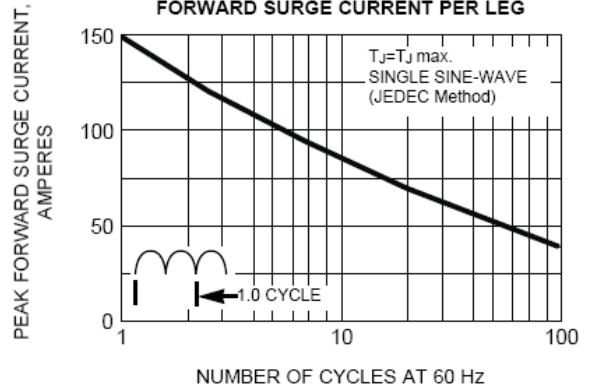


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

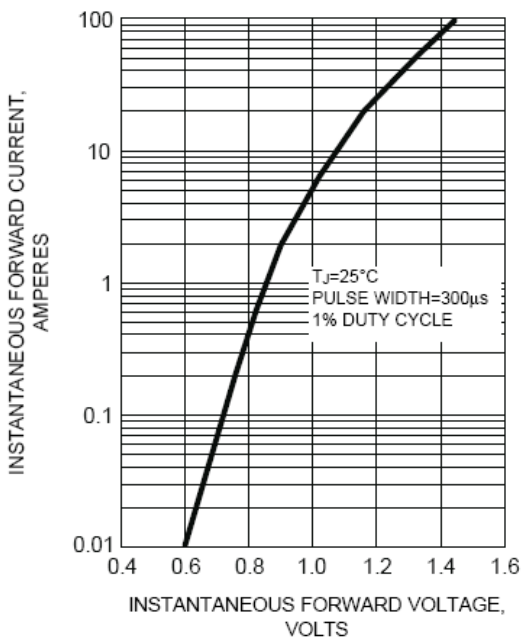


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

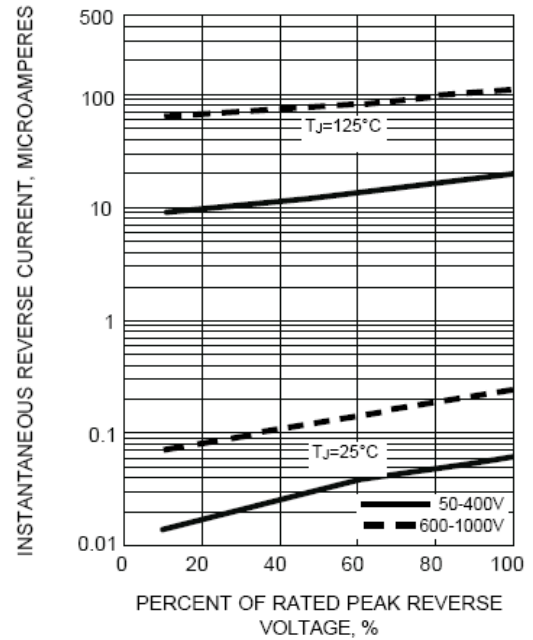


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

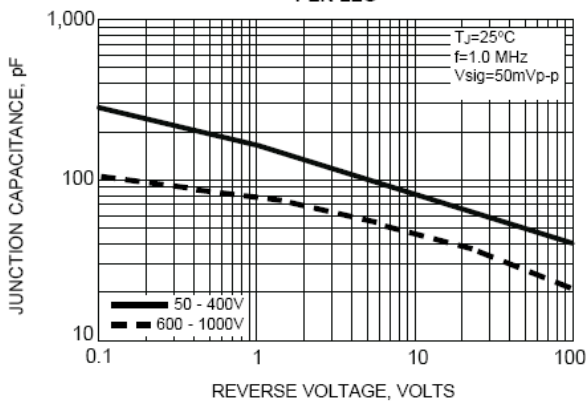


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

