GBU10A THRU GBU10M

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V Current: 10.0A

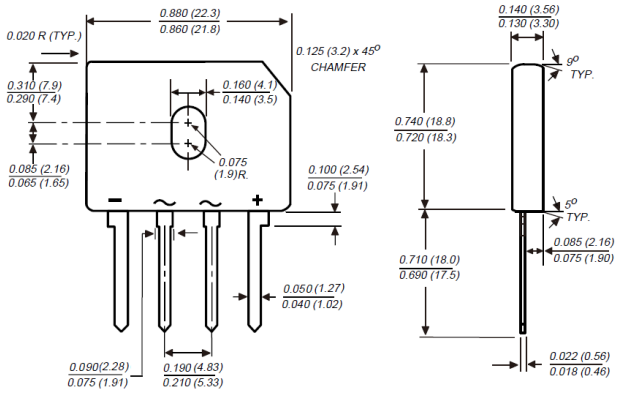
Features

Ideal for printed circuit board
Glass passivated chip junction
High case dielectric strength
High surge overload rating
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

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	GBU 10A	GBU 10B	GBU 10D	GBU 10G	GBU 10J	GBU 10K	GBU 10M	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)	If(av)	10.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	Ifsm	220							A
Maximum instantaneous forward voltage drop per leg at 5A	Vf	1.0							V
Rating for fusing (t < 8.3ms)	I^2t	200							A^2Sec
Maximum DC reverse current at rated DC blocking voltage per leg Ta = 25°C Ta = 125°C	Ir	5.0 500							μA
Typical junction capacitance per leg at 4V,1MHz	Cj	211				94			pF
Maximum thermal resistance per leg (Note1) (Note2)	Rth(ja) Rth(jc)	21 2.0							℃/W
Operating junction and storage temperature range	Tj, Tstg	-55 to +150							℃

Note:
1. Unit mounted in free air no heat sink on P.C.B. 0.5 x 0.5" (12 x12 mm) copper pads, 0.375"(9.5mm) lead length
2. Device mounted on 4 x 6 x 0.25" Al-plate heatsink

Fig. 1 – Derating Curve Output Rectified Current

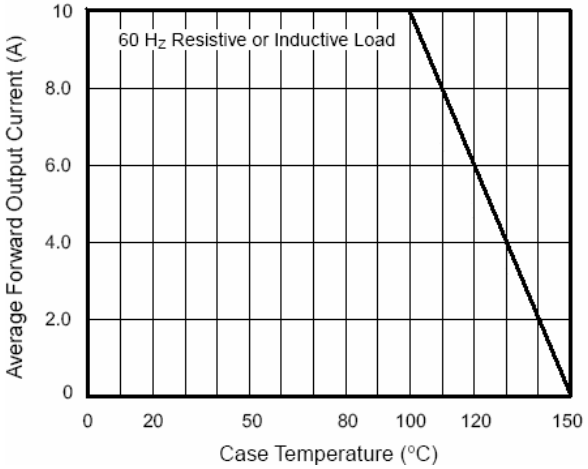


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

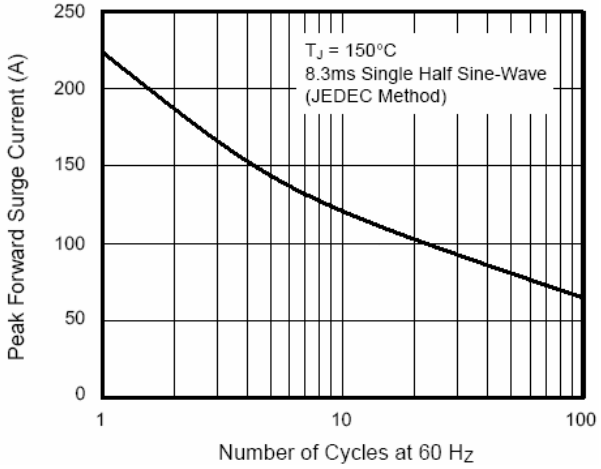


Fig. 3 – Typical Forward Characteristics Per Leg

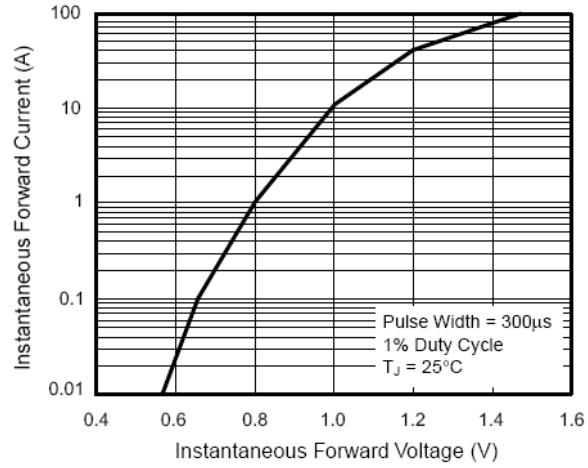


Fig. 4 – Typical Reverse Characteristics Per Leg

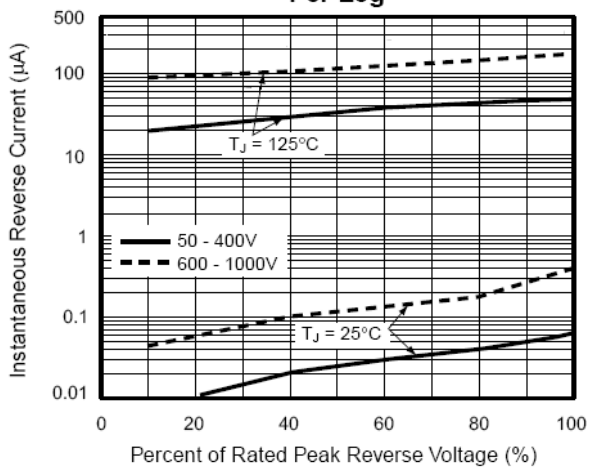


Fig. 5 – Typical Junction Capacitance Per Leg