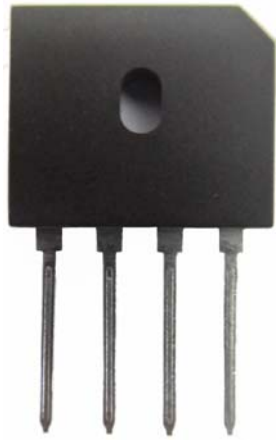
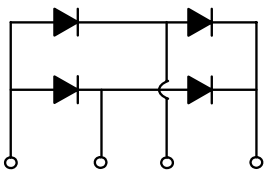
GBU1002 thru GBU1010



Circuit



Glass Passivated Single Phase Bridge Rectifiers

Reverse Voltage 200 to 1000V
Forward Current 10 Amp

Features

- Glass passivated die construction
- Ideal for printed circuit boards
- Plastic material used carries UL flammability recognition 94V-0
- High surge current capability
- High temperature soldering guaranteed: 265℃ /10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension

Mechanical Data

Case: Molded plastic case
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: Marked on Body
Mounting Position: Any

Module Type

TYPE	V_{RRM}	V_{RSM}
GBU1002	200V	300V
GBU1004	400V	500V
GBU1006	600V	700V
GBU1008	800V	900V
GBU1010	1000V	1100V

Maximum Ratings and Thermal Characteristics (TA = 25℃ unless otherwise noted)

Symbol	Conditions	Values	Units
$I_{F(AV)}$	Maximum average forward output rectified current Tc =100℃	10(1)	A
I_{FSM}	Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	200	A
i^2t	Rating for fusing (t<8.3ms)	166	A^2s
Visol	a.c.50HZ;r.m.s.;1min	2500	V
$R_{\theta JA}$ $R_{\theta JC}$	Maximum thermal resistance per leg	22(2) 4.2 (3)	℃/W
T_j, T_{STG}	Operating Junction and storage temperature range	-55 to +150	℃
Weight	Approximate Weight	4.0	g

Electrical Characteristics (TA = 25℃ unless otherwise noted)

Symbol	Conditions		Values	Units
V_F	Maximum Instantaneous Forward Voltage per leg	I_{FM} =10A	1.05	V
I_R	Maximum DC reverse current at rated DC blocking voltage per leg	T_A = 25℃ T_A = 125℃	5.0 500	μA

Notes: (1) Heat sink, Tc mouting-4x4x0.15cm thick copper plate
(2) Junction to ambient without heatsink
(3) Junction to case with heatsink
(4) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

Performance Curves

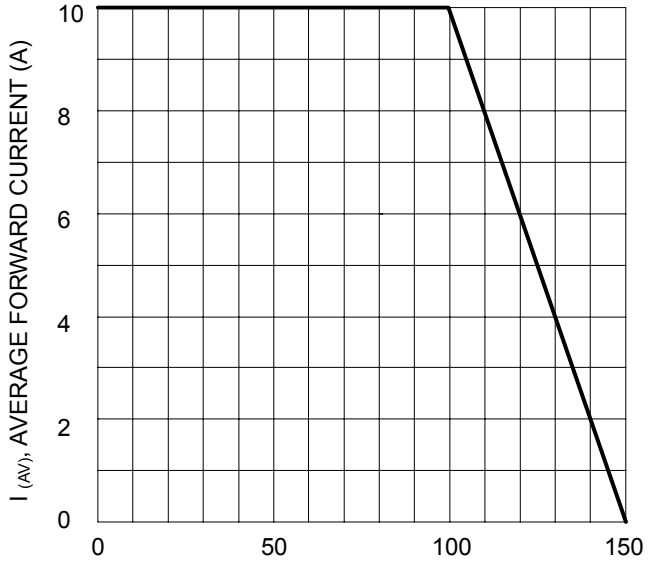


Fig.1 Forward Current Derating Curve

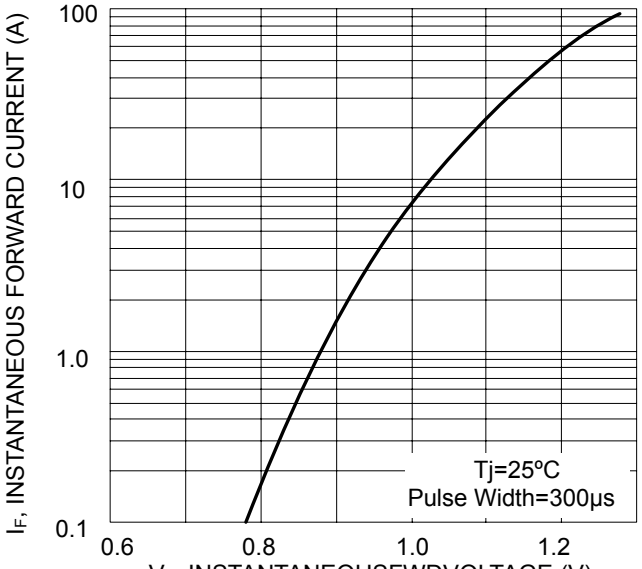


Fig.2 Typical Forward Characteristics, per element

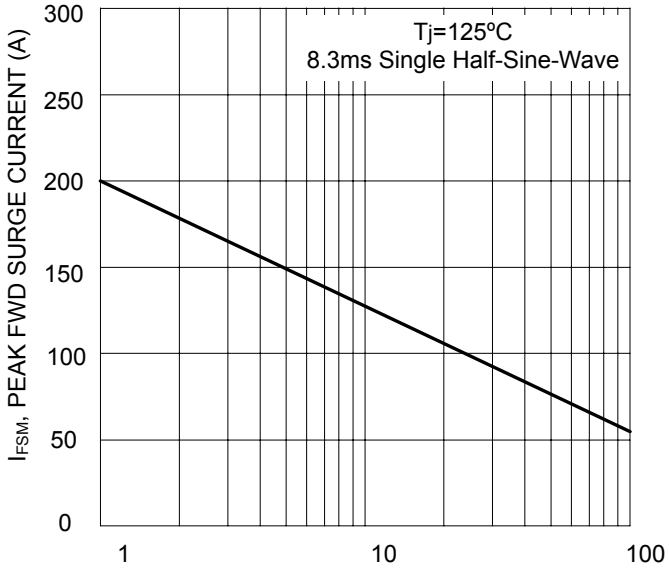


Fig.3 Max Non-Repetitive Forward Surge Current

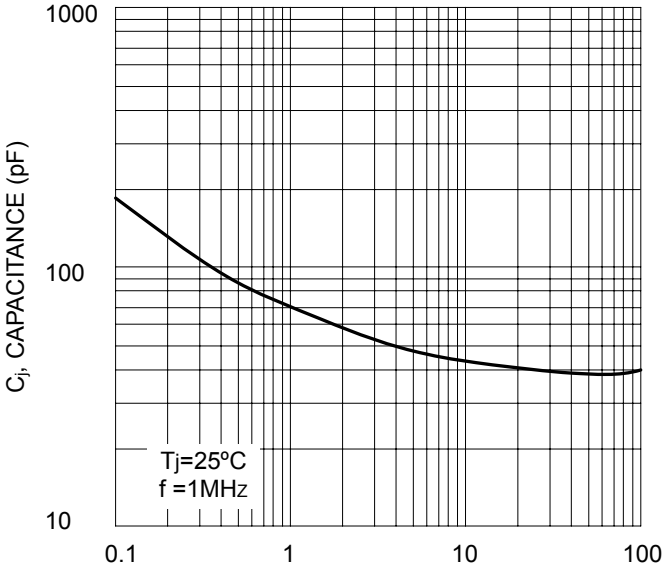


Fig.4 Typical Junction Capacitance per element

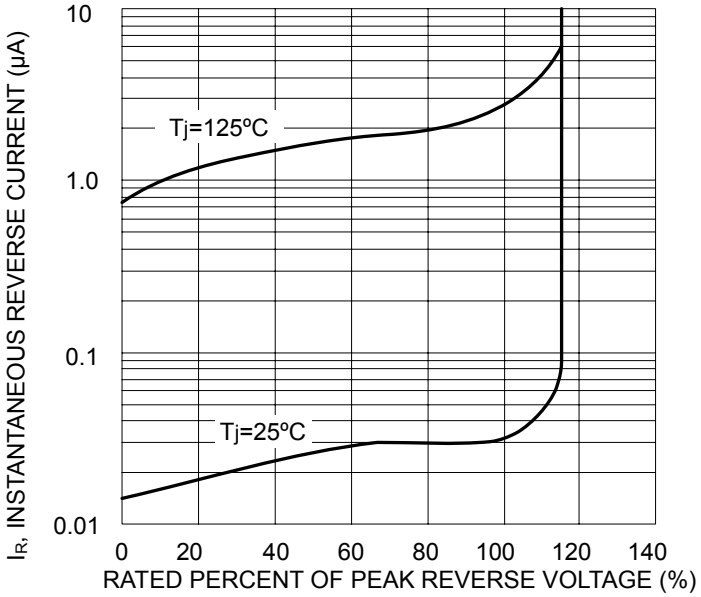
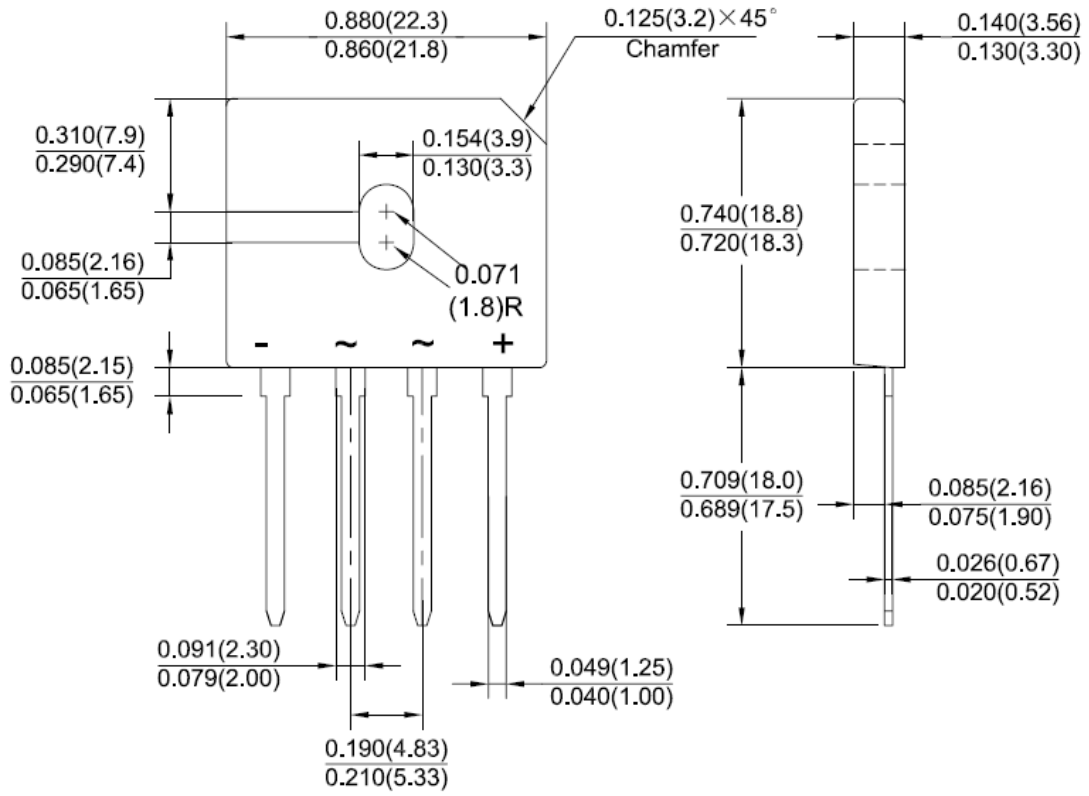


Fig.5 Typical Reverse Characteristics

Package Outline Information

CASE: GBU-A



Dimensions in inches (mm)