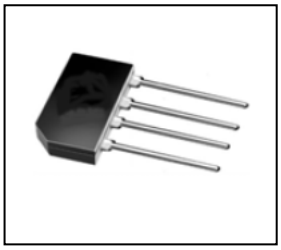
Glass passivated Single Phase Bridge Rectifiers

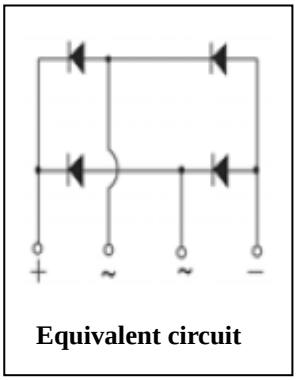
GBL4AU thru GBL4MU

Reverse Voltage 50 to 1000V Forward Current 4 Amps

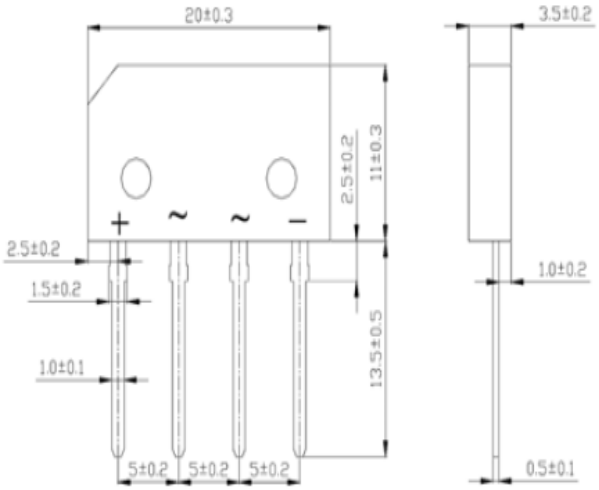


Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit boards
- Glass passivated chip junction
- High surge current capability
- High case dielectric strength
- Typical I_R less than 0.1μA
- UL recognized #E241476



Equivalent circuit



Package outline dimensions in millimeters

Mechanical Data

- Case: GBL Molded plastic body
- Terminals: Matte tin plated leads, solderable per J-STD-002B and JESD22-B102D
- High temperature soldering guaranteed : 260°C/10 seconds, 0.375”(9.5mm) lead length, 5lbs(2.3kg) tension
- Mounting position: Any.
- Polarity : shown on front side of case, positive lead by beveled corner.
- Weight: 2.1gram, 0.074 oz.

Maximum Ratings and Electrical Characteristics

(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Type							Units
		GBL4AU	GBL4BU	GBL4DU	GBL4GU	GBL4JU	GBL4KU	GBL4MU	
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 instantaneous forward voltage drop per leg, I_F=2A	V_F	1							V
Maximum average forward rectified output current at T_C=50°C	$I_{F(AV)}$	4.0 (Note 1)							A
Maximum average forward rectified output current at T_A=40°C		3.0 (Note 2)							
Peak forward surge current @ 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	150							A
Rating for fusing (t<8.3ms)	I^2t	93							A^2s
Maximum DC reverse current at rated DC blocking voltage per leg T_A=25°C	I_R	10							μA
Maximum DC reverse current at rated DC blocking voltage per leg T_A=150°C		500							
Typical thermal resistance per leg	$R_{\theta JA}$	22 (Note 2)							°C /W
	$R_{\theta JL}$	3.5 (Note 1)							
Typical junction capacitance per Leg at 4V, 1MHz	C_J	95				40			pF
Storage temperature range	Tstg	-55 ~ +150							°C
Operating junction temperature range	T_J	-55 ~ +150							°C

Notes : 1.Unit mounted on 3.0”x3.0”x0.11” thick (7.5 cmx7.5cmx0.3cm) Al plate
2.Unit mounted on PCB at 0.375”(9.5mm) lead length and 0.5”x0.5”(13mmx13mm) copper pads.

Characteristic Curves

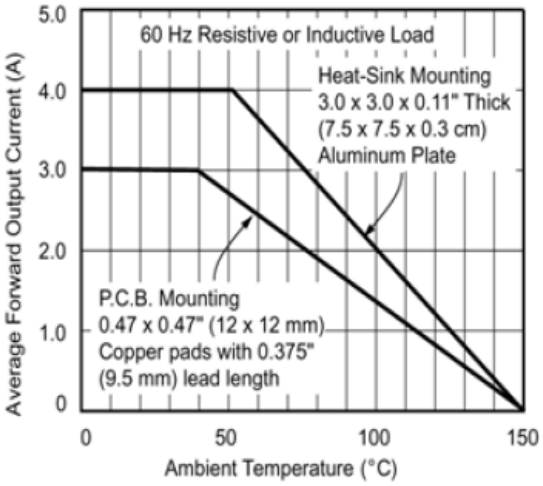


Figure 1. Derating Curves Output Rectified Current

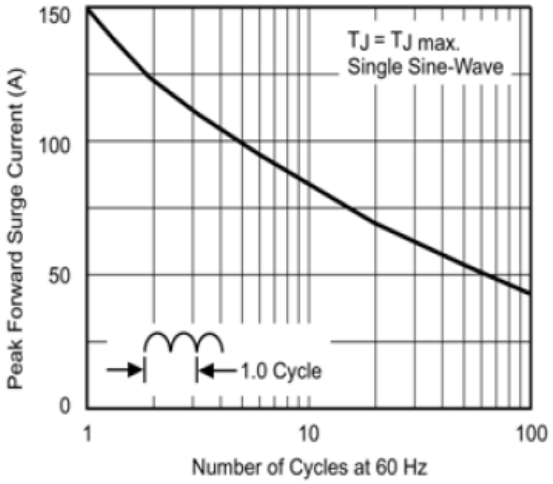


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

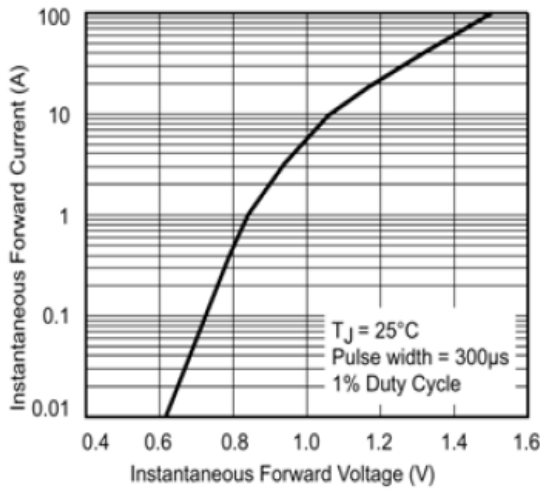


Figure 3. Typical Forward Voltage Characteristics Per Leg

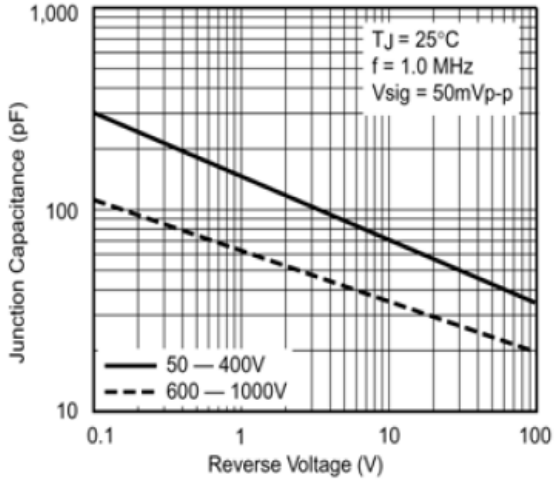


Figure 5. Typical Junction Capacitance Per Leg

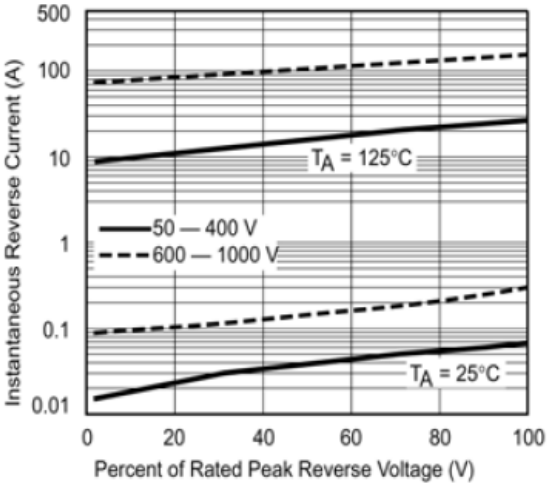


Figure 4. Typical Reverse Characteristics Per Leg

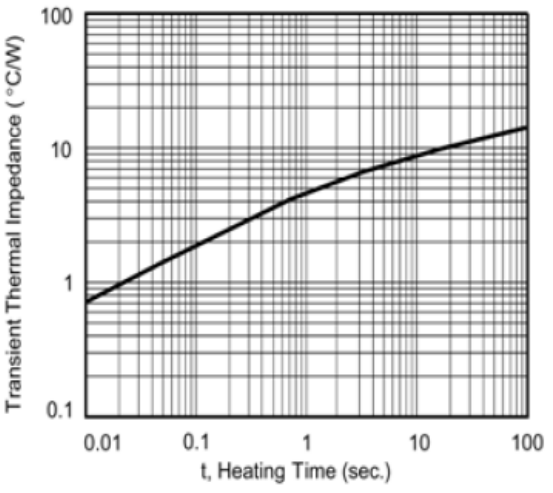


Figure 6. Typical Transient Thermal Impedance Per Leg