



Glass Passivated Single-Phase Bridge Rectifier

Major Ratings and Characteristics

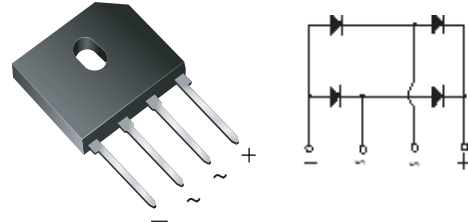
$I_{F(AV)}$	4 A
V_{RRM}	200 V, 600 V & 800 V
I_{FSM}	80 A
I_R	5 μ A
V_F	1.0 V
T_j max.	150 °C

Features

- UL Recognition file number E54214
- Ideal for printed circuit boards
- High surge current capability
- High case dielectric strength of 1500 V_{RMS}
- Solder Dip 260 °C, 40 seconds



Case Style GBU



Typical Applications

General purpose use in ac-to-dc bridge full wave rectification for Monitor, TV, Printer, Switching Mode Power Supply, Adapter, Audio equipment, and Home Appliances applications.

Mechanical Data

Case: GBU

Epoxy meets UL-94V-0 Flammability rating

Terminals: Matte tin plated (E3 Suffix) leads, solderable per J-STD-002B and JESD22-B102D

Polarity: As marked on body

Mounting Torque: 10 cm-kg (8.8 inches-lbs) max.

Recommended Torque: 5.7 cm-kg (5 inches-lbs)

Maximum Ratings

$T_A = 25$ °C, unless otherwise specified

Parameter	Symbol	G3SBA20	G3SBA60	G3SBA80	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	600	800	V
Maximum RMS voltage	V_{RWM}	140	420	560	V
Maximum DC blocking voltage	V_{DC}	200	600	800	V
Maximum average forward rectified output current at $T_C = 100$ °C (1) $T_A = 25$ °C (2)	$I_{F(AV)}$	4.0 2.3			A
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	80			A
Rating for fusing ($t < 8.3$ ms)	I^2t	27			A ² sec
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150			°C

Notes:

(1) Unit case mounted on Al plate heatsink

(2) Units mounted on P.C.B with 0.5 x 0.5" (12 x 12 mm) copper pads and 0.375" (9.5 mm) lead length

Electrical Characteristics

$T_A = 25\text{ }^\circ\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	G3SBA20	G3SBA60	G3SBA80	Unit
Maximum instantaneous forward voltage per leg	at 2.0 A	V_F		1.00		V
Maximum DC reverse current at rated DC blocking voltage per leg	$T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	I_R		5.0	400	μA

Thermal Characteristics

$T_A = 25\text{ }^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	G3SBA20	G3SBA60	G3SBA80	Unit
Typical thermal resistance per leg	$R_{\theta JA}^{(2)}$ $R_{\theta JC}^{(1)}$		26	5.0	$^\circ\text{C}/\text{W}$

Note:

(1) Unit case mounted on Al plate heatsink

(2) Units mounted on P.C.B with 0.5 x 0.5" (12 x 12 mm) Copper pads and 0.375" (9.5 mm) lead length

Ratings and Characteristics Curves

($T_A = 25\text{ }^\circ\text{C}$ unless otherwise specified)

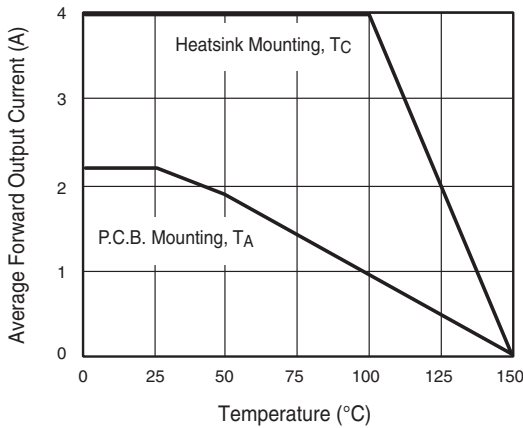


Figure 1. Derating Curve Output Rectified Current

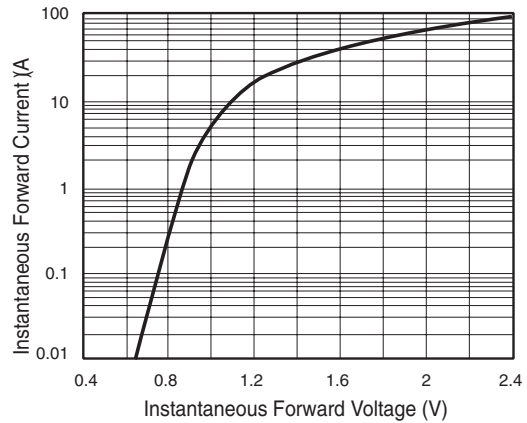


Figure 3. Typical Instantaneous Forward Characteristics Per Leg

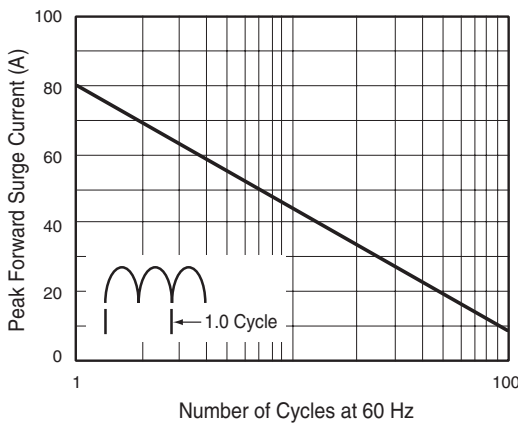


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

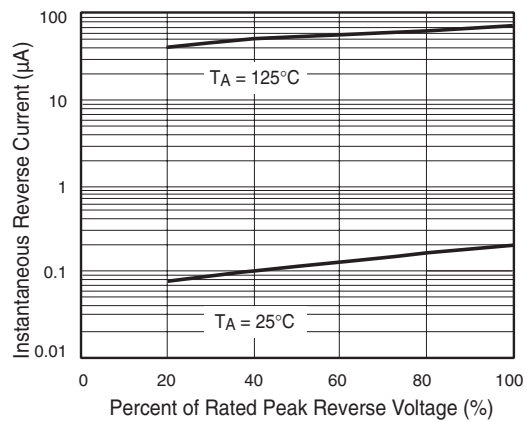


Figure 4. Typical Reverse Leakage Characteristics Per Leg

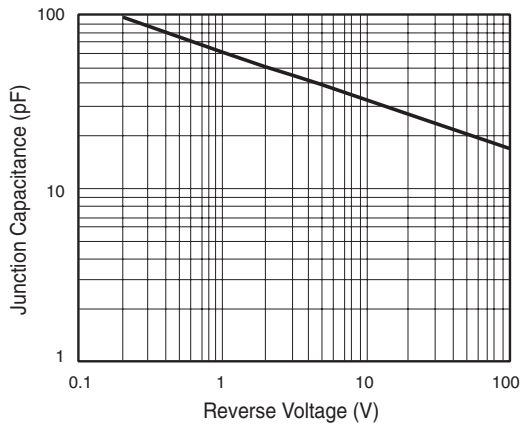


Figure 5. Typical Junction Capacitance Per Leg

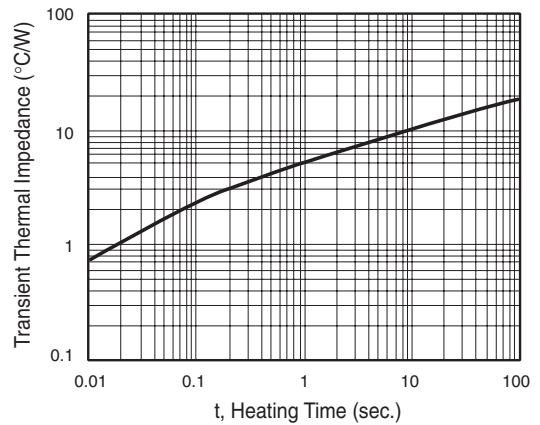
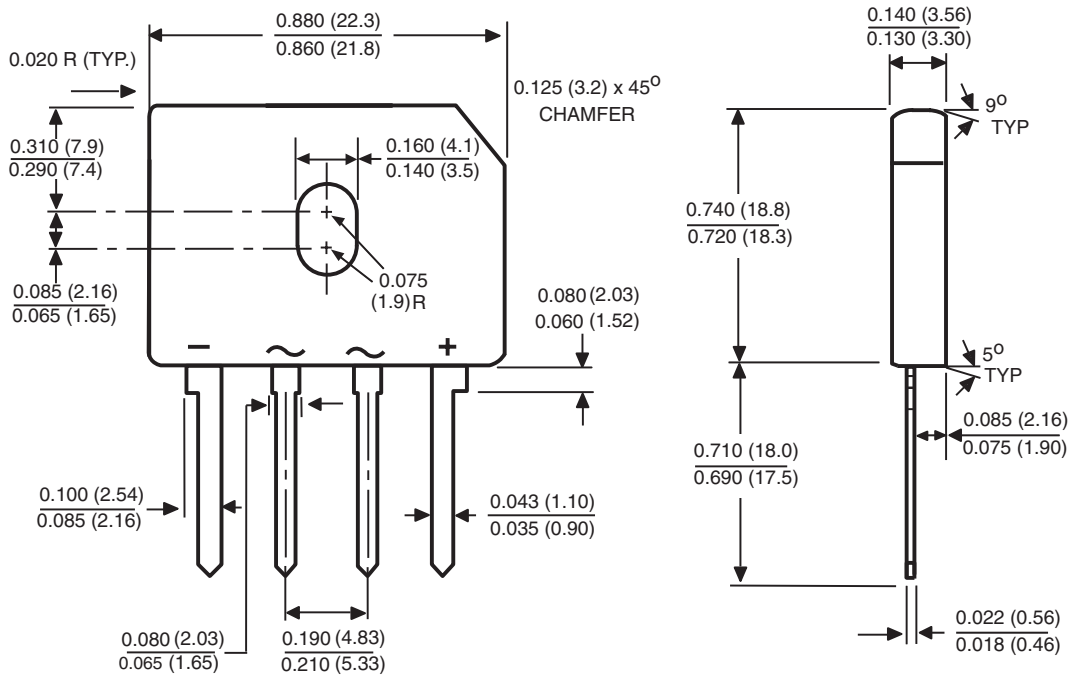


Figure 6. Typical Transient Thermal Impedance

Package Dimensions in inches (millimeters)



Polarity shown on front side of case, positive lead by beveled corner



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