

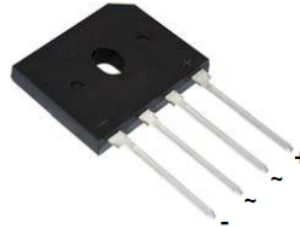
Glass Passivated Single-Phase Bridge Rectifier

FEATURES

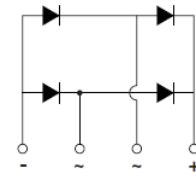
- Ideal for printed circuit boards
- High surge current capability
- High case dielectric strength of 1500 V_{RMS}
- Solder dip 275 °C max. 10 s, per JESD 22-B106

TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, switching mode power supply, adapter, audio equipment, and home appliances applications.



Case Style GBU



Case Style GBU

MECHANICAL DATA

Case: GBU

Molding compound meets UL 94 V-0 flammability rating
 Base P/N-E3 - RoHS-compliant, commercial grade

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD 22-B102

MAXIMUM RATINGS (T _A = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	GBU6A	GBU6B	GBU6D	GBU6G	GBU6J	GBU6K	GBU6M	UNIT
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 (fig. 1)	I _{F(AV)}	6.0							A
$\frac{T_C = 90\text{ }^\circ\text{C}^{(1)}}{T_A = 40\text{ }^\circ\text{C}^{(2)}}$		3.8							
Peak forward surge current single sine-wave superimposed on rated load	I _{FSM}	175							A
Rating for fusing (t < 8.3 ms)	I ² t	127							A ² s
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150							°C

Notes

(1) Unit case mounted on aluminum plate heatsink

(2) Units mounted on PCB with 0.5" x 0.5" (12 mm x 12 mm) copper pads and 0.375" (9.5 mm) lead length

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)										
PARAMETER	TEST CONDITIONS	SYMBOL	GBU6A	GBU6B	GBU6D	GBU6G	GBU6J	GBU6K	GBU6M	UNIT
Maximum instantaneous forward voltage drop per diode	6.0 A	V _F	1.0							V
Maximum DC reverse current at rated DC blocking voltage per diode	T _A = 25 °C	I _R	5.0							μA
	T _A = 125 °C		500							
Typical junction capacitance per diode	4 V, 1 MHz	C _J	68							pF

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	GBU6A	GBU6B	GBU6D	GBU6G	GBU6J	GBU6K	GBU6M	UNIT
Typical thermal resistance	R _{θJA} ⁽²⁾	20							°C/W
	R _{θJC} ⁽¹⁾⁽³⁾	2.5							

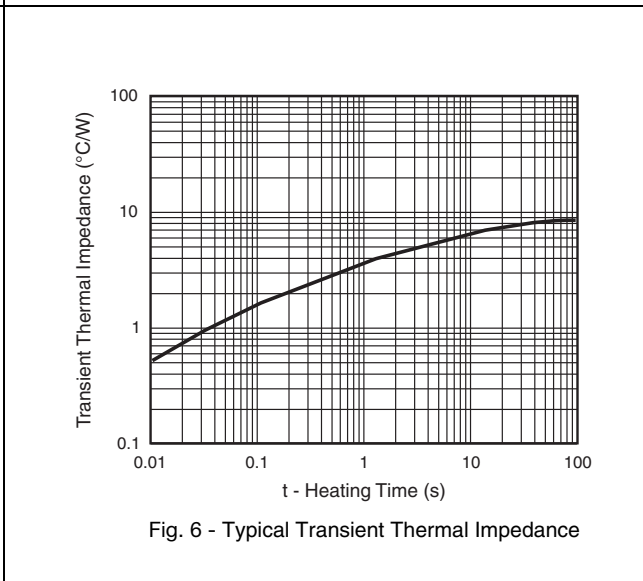
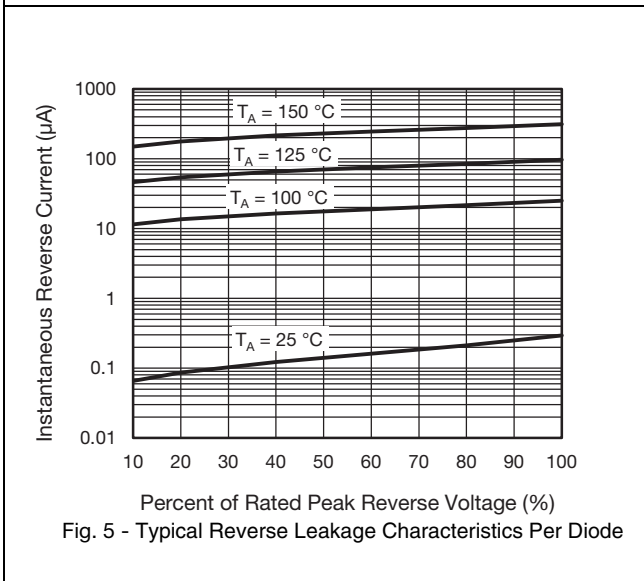
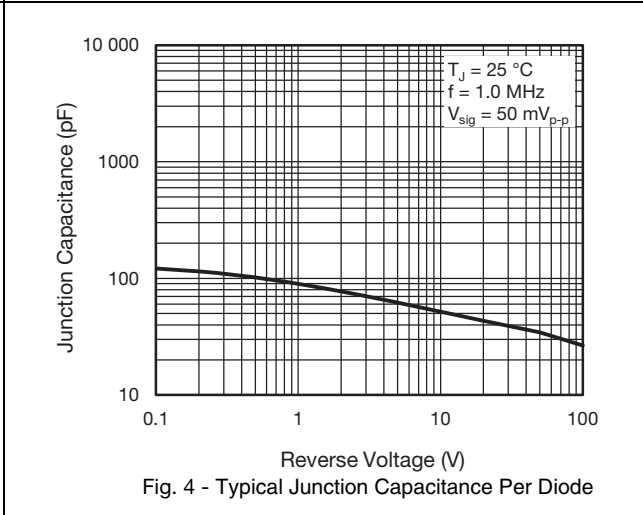
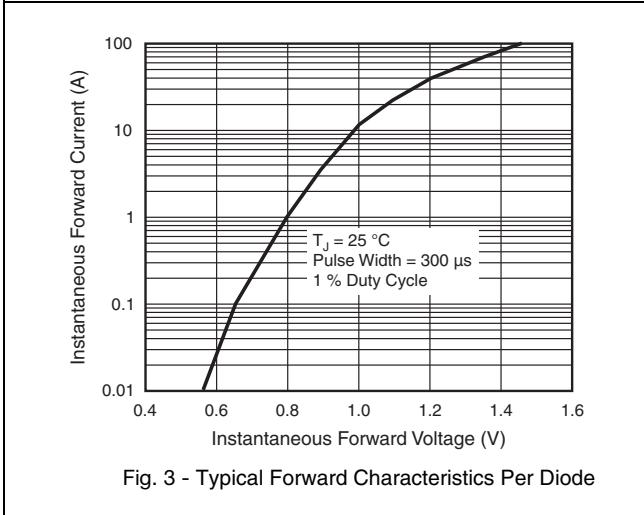
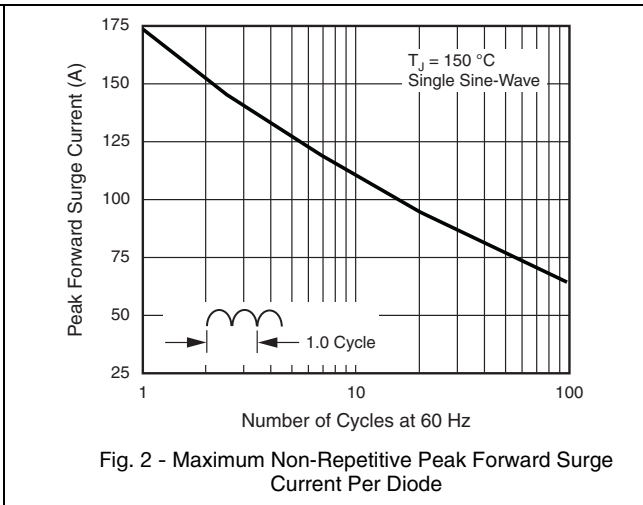
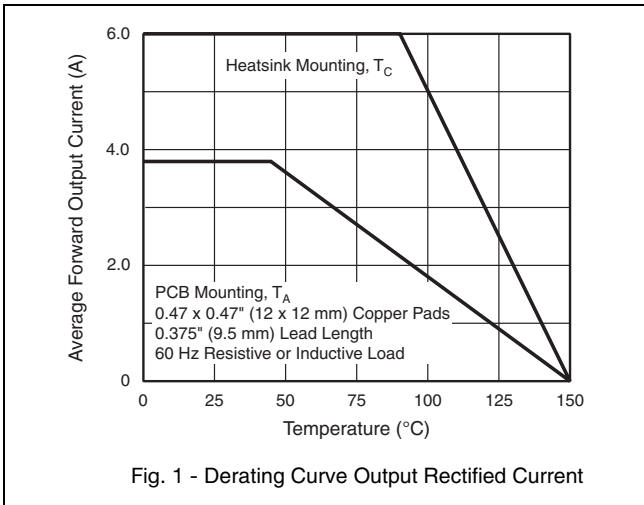
Notes

(1) Units case mounted on aluminum plate heatsink

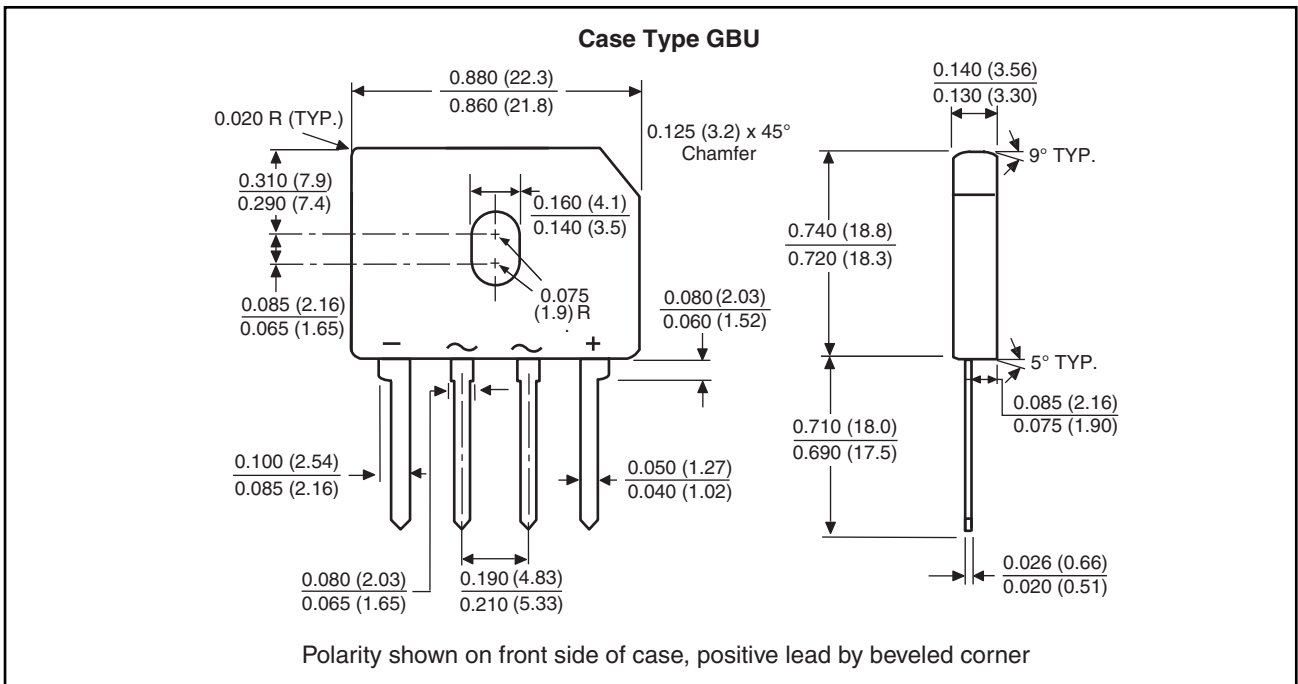
(2) Units mounted in free air, no heatsink on PCB, 0.5" x 0.5" (12 mm x 12 mm) copper pads, 0.375" (9.5 mm) lead length

(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws

RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



REVISION HISTORY

Date	Revision	Changes
23-May-2020	1.0	Initial release

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