

Single Phase Glass Passivated
Bridge RectifiersReverse Voltage: 50V to 1000V
Forward Current: 4 Amp

Features

- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- Solder dip 260°C max. 10 s, per JESD 22-B106

Mechanical Data

• Package: GBU

Molding compound meets UL 94 V-0 flammability rating

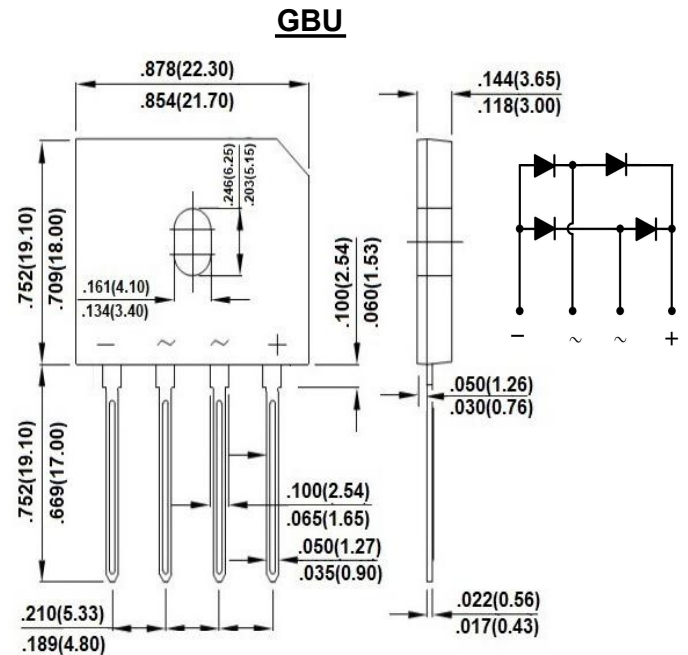
• Terminals: Matte tin plated leads,

solderable per MIL-STD-750, Method 2026

• Polarity: Symbol marking on body

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.



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	GBU 4005	GBU 401	GBU 402	GBU 404	GBU 406	GBU 408	GBU 410	Unit
Device marking code		GBU 4005	GBU 401	GBU 402	GBU 404	GBU 406	GBU 408	GBU 410	
Maximum Recurrent 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 Output Rectified Current (FIG.1)	I _{O(AV)}	4.0							A
	With heatsink T _c =100°C (Note 1)								
	Without heatsink T _a =40°C (Note 2)	2.4							A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load	I _{FSM}	120							A
Operating junction range	T _j	-55 to+150							°C
Storage temperature range	T _{STG}	-55 to+150							°C

Thermal Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	GBU 4005	GBU 401	GBU 402	GBU 404	GBU 406	GBU 408	GBU 410	Unit
Maximum Thermal Resistance per Leg, Junction To Ambient (Note 2)	R _{θJA}	22							°C/W
Maximum Thermal Resistance per Leg, Junction To Case (Note 1)	R _{θJC}	4.2							°C/W

Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions		SYM.	GBU 4005	GBU 401	GBU 402	GBU 404	GBU 406	GBU 408	GBU 410	Unit
Maximum Instantaneous Forward Voltage per diode	IF=2A	V _{FM}	1.0							V
	IF=4A		1.1							
Maximum DC reverse current at rated DC blocking voltage per diode	TA = 25℃	I _R	5							μA
	TA = 125℃		200							

Notes:

1. Units case mounted on 1.6" x 1.6" x 0.06" thick (4.0 cm x 4.0 cm x 0.15 cm) 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.

Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

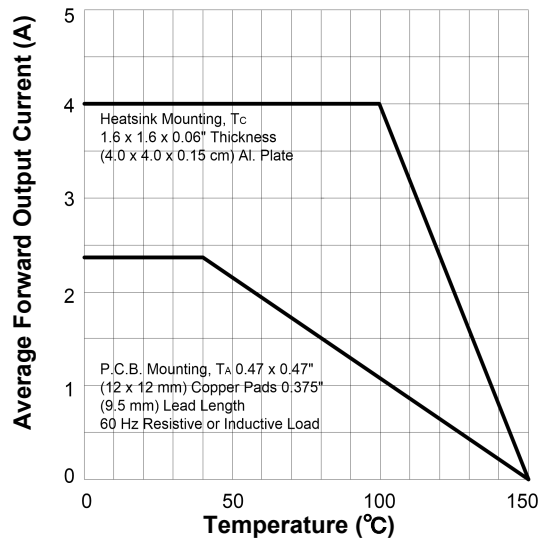


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT Per Diode

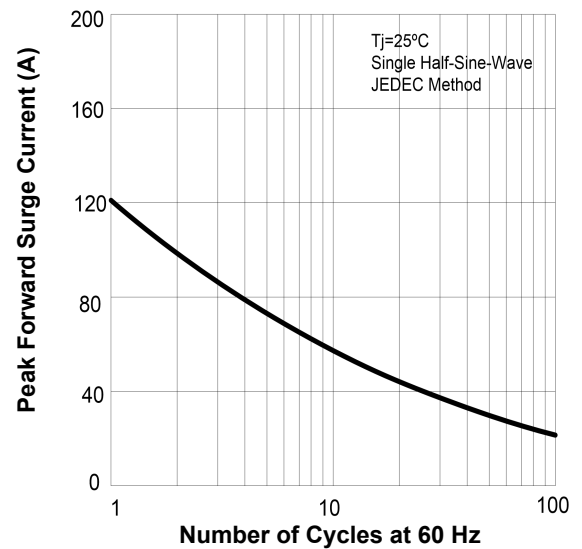


FIG. 3- TYPICAL FORWARD VOLTAGE

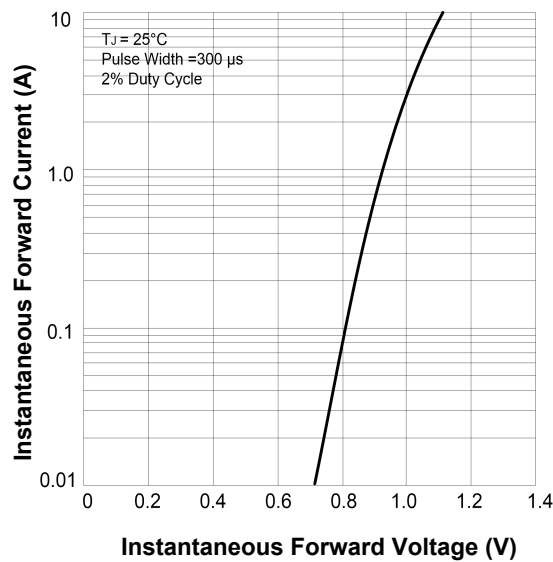
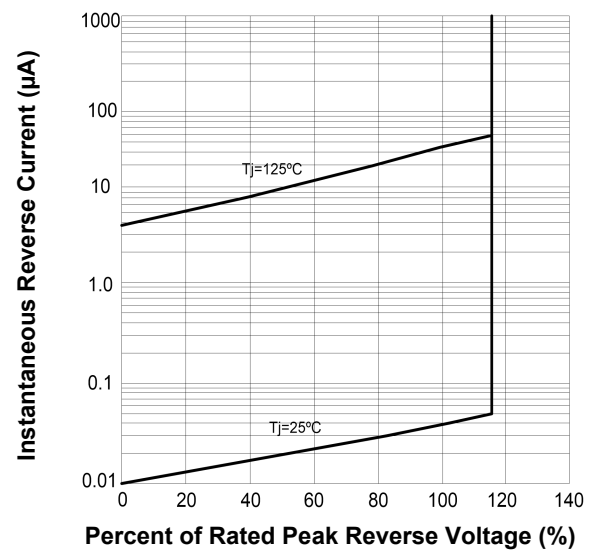


FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.

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