

GBU10005 THRU GB1010

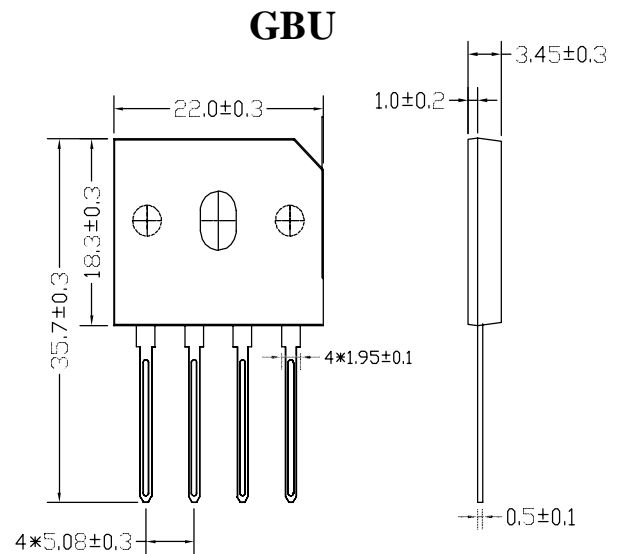
SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS
REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 10 Ampere

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Glass passivated chip junction
- ◆ High forward surge capability

Mechanical Data

- ◆ Case: GBU Molded plastic body
- ◆ Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- ◆ High temperature soldering guaranteed: 260°C/10 seconds
- ◆ Mounting Position: Any



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	GBU 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	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
Average forward rectified output current $T_C = 80^\circ\text{C}$ With heatsink $T_A = 25^\circ\text{C}$ Without heatsink	$I_{F(AV)}$					10.0			A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}					175			A
Rating for fusig ($t < 8.3\text{ms}$)	I^2t					127			A^2sec
Maximum instantaneous forward voltage dropper leg at 5A	V_F					1.0			V
Maximum DC reverse current at rated DC blocking voltage per leg	I_R					5.0			μA
						500			

THERMAL CHARACTERISTICS

Typical Junction Capacitance per element (Note 1)	$R_{\theta JA(2)}$	25	$^\circ\text{C}/\text{W}$
	$R_{\theta JL(1)(3)}$	2.3	
Operating junction temperature range	T_j	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

Note: 1. Unit case mounted on aluminum 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

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

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Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

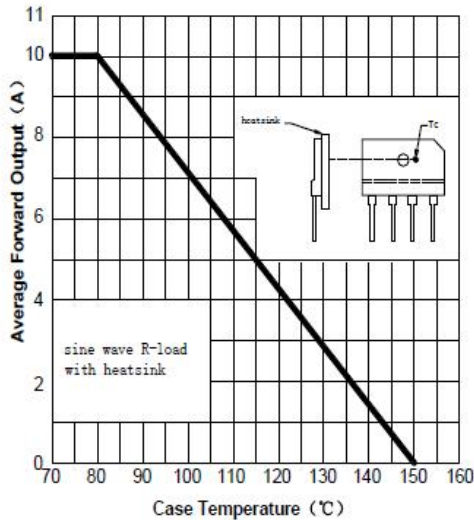


Fig.1-Forward Current Derating Curve

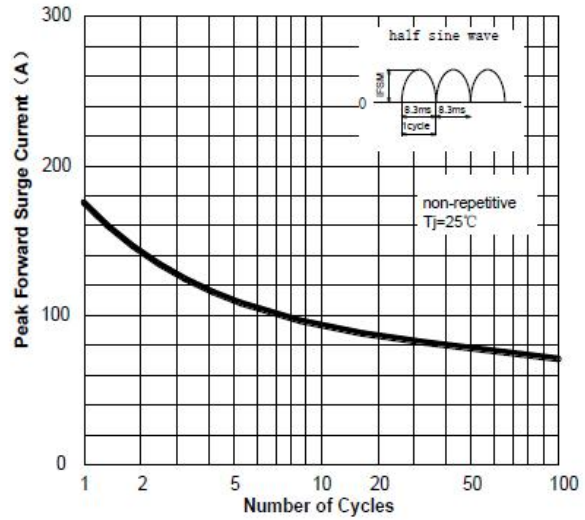


FIG2: Surge Forward Current Capability

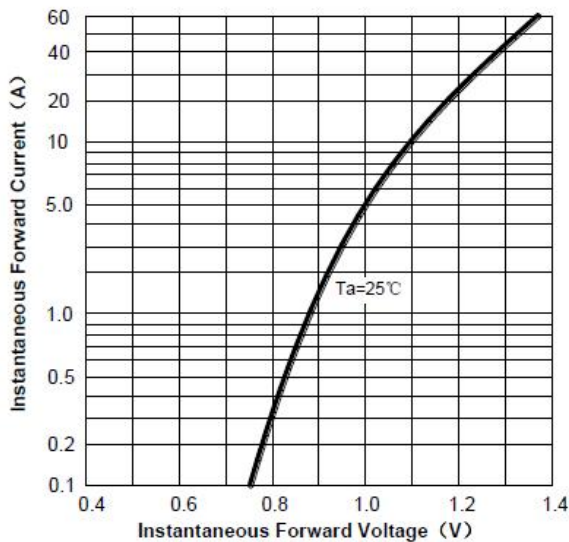


Fig.3- Typical Forward Voltage Characteristic

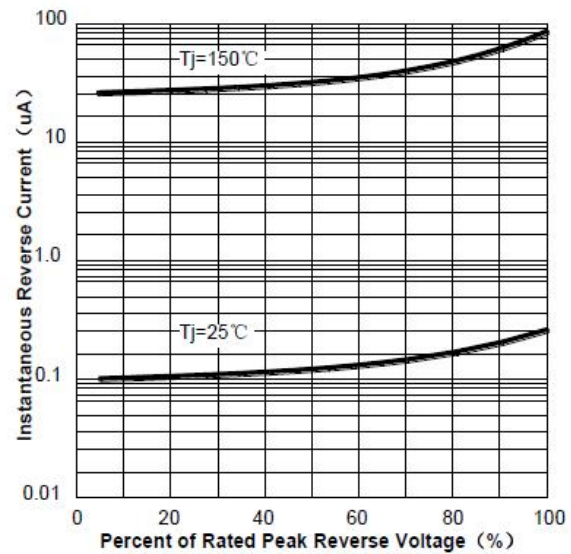


FIG4: Typical Reverse Characteristics

Note: Specifications are subject to change without notice. For more detail and update, please visit our website.