

GBU6005 THRU GBU610

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 6.0 Ampere

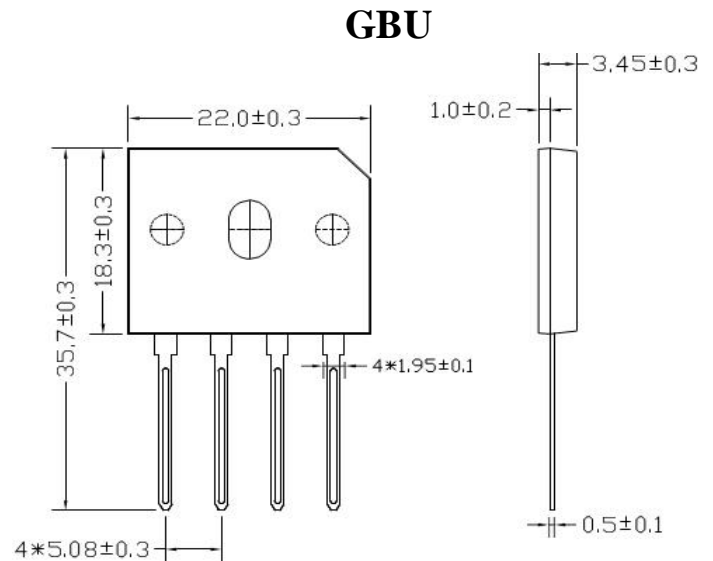
FEATURES

◆ 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 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	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 $T_C = 90^\circ\text{C}$ (1) $T_A = 40^\circ\text{C}$ (2)	$I_{F(AV)}$	6.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	3.8							A
Rating for fusing ($t < 8.3\text{ms}$)	I^2t	125							A^2sec
Maximum instantaneous forward voltage dropper leg at 3A	VF	64.85							V
Maximum DC reverse current	IR	$T_j = 25^\circ\text{C}$							uA
at rated DC blocking voltage per leg		$T_j = 125^\circ\text{C}$							

THERMAL CHARACTERISTICS

Typical thermal resistance per leg (Note 1)	$R_{\theta JA(2)}$	20	$^\circ\text{C}/\text{W}$
	$R_{\theta JL(1)(3)}$	2.5	
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

GBU6005 THRU GBU610

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS
 REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 6.0 Ampere

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

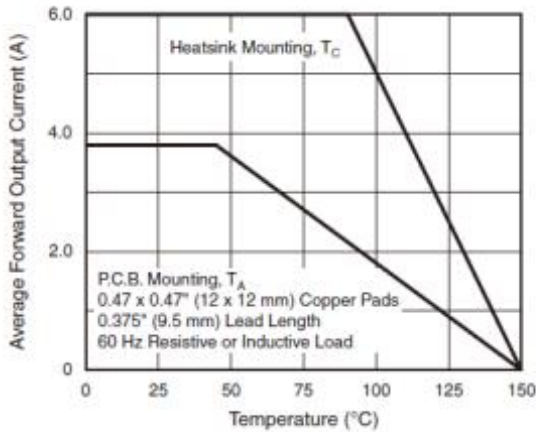


Figure 1. Derating Curve Output Rectified Current

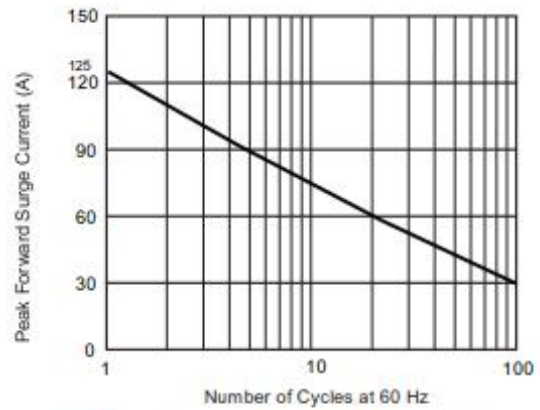


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

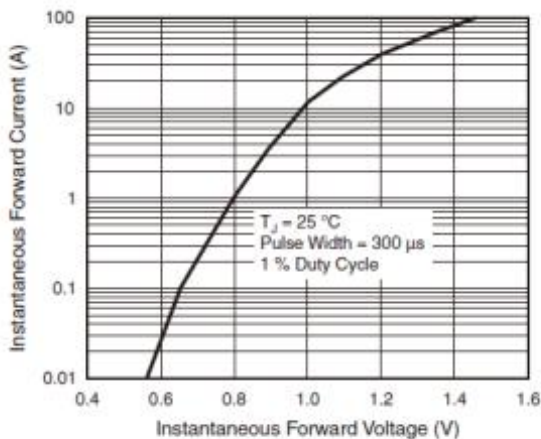


Figure 3. Typical Forward Characteristics Per Diode

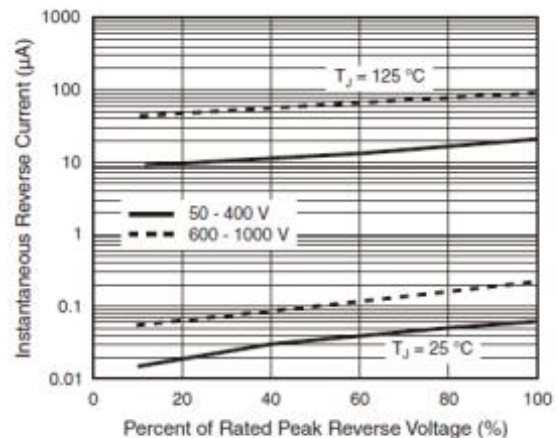


Figure 4. Typical Reverse Leakage Characteristics Per Diode

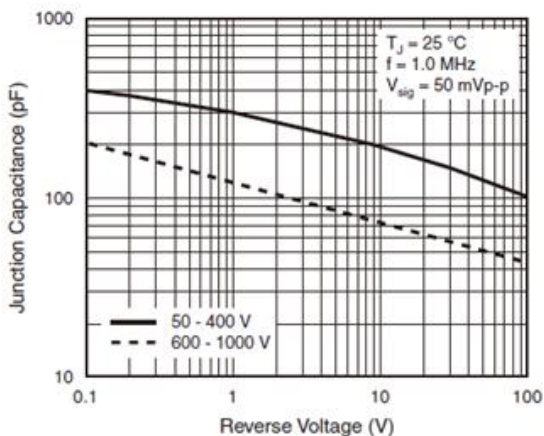


Figure 5. Typical Junction Capacitance Per Diode

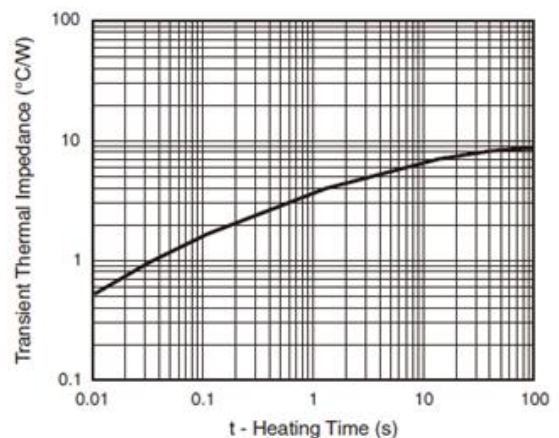


Figure 6. Typical Transient Thermal Impedance

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