Kingtronics®

GBU8005 THRU GBU810

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE 50 to 1000 Volts **FORWARD CURRENT** 8.0 Ampere

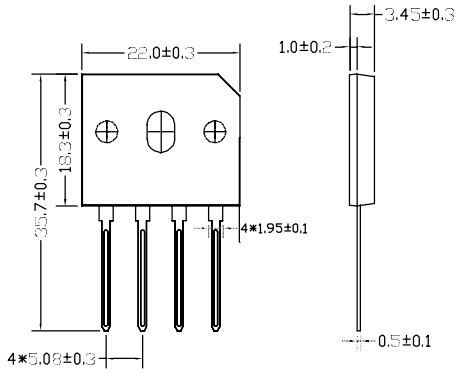
FEATURES

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℃/10 seconds
Mounting Position: Any

GBU



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at TA = 25°C unless otherwise specified

PARAMETER	SYMBOL	GBU 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	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 = 60 °C (1) T_A = 40 °C (2)	$I_{F(AV)}$	8.0 3.9							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A
Rating for fusig (t<8.3ms)	I^2t	93.4							A^2sec
Maximum instantaneous forward voltage dropper leg at 3A	VF	1.0							V
Maximum DC reverse current at T_j= 25℃ rated DC blocking voltage per leg T_j = 125℃	IR	5.0 500							uA

THERMAL CHARACTERISTICS

Typical thermal resistance per leg (Note 1)	$R_{\theta JA}$ (2)	20	℃/W
	$R_{\theta JL}$(1)(3)	4.0	
Operating junction temperature range	T_J	-55 to +150	℃
Storage temperature range	T_{STG}	-55 to +150	℃

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°C unless otherwise noted)

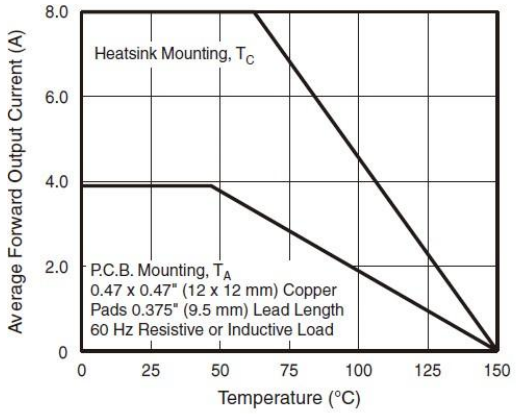

Figure 1. Derating Curve Output Rectified Current

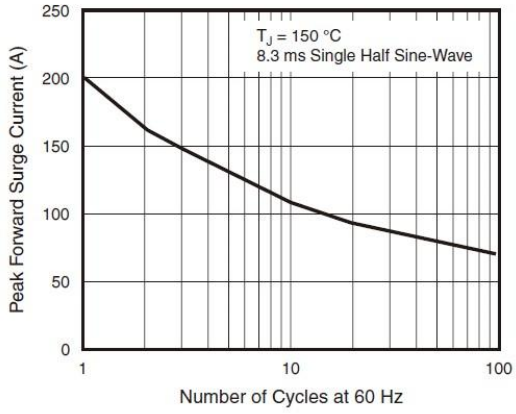

Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

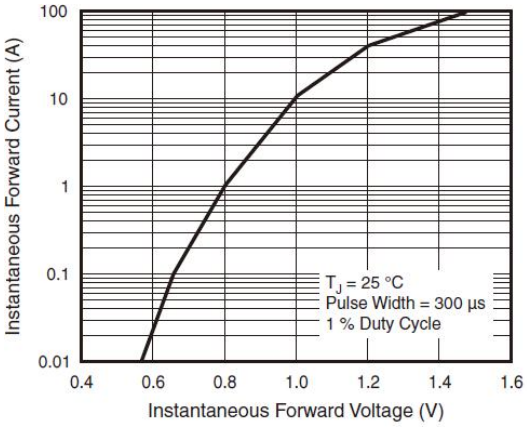

Figure 3. Typical Forward Characteristics Per Diode

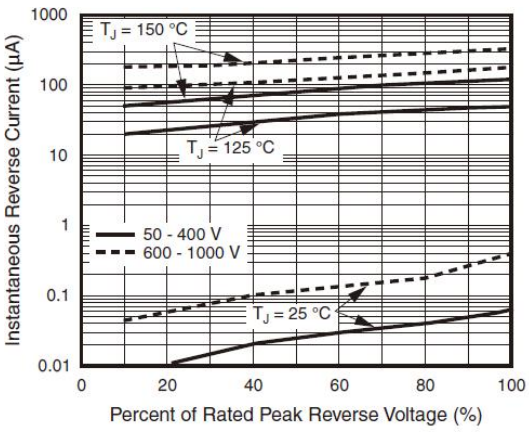

Figure 4. Typical Reverse Leakage Characteristics Per Diode

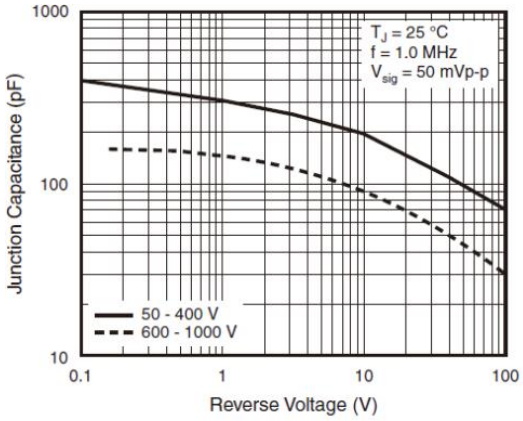

Figure 5. Typical Junction Capacitance Per Diode

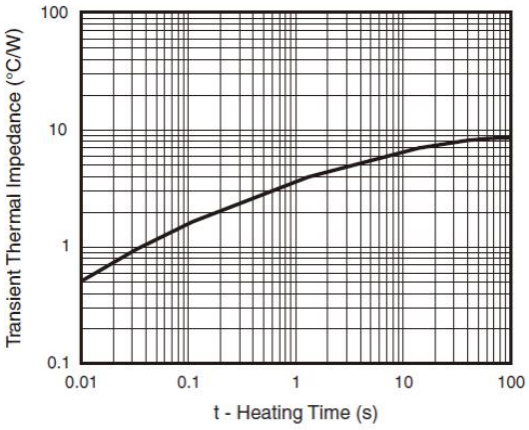

Figure 6. Typical Transient Thermal Impedance Per Diode

Note: Specifications are subject to change without notice.