MEI

Lead Free RoHS Compliant

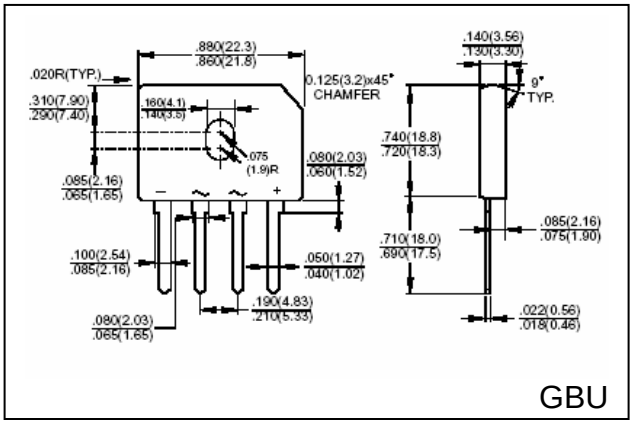
SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

GBU6A THRU GBU6M

VOLTAGE RANGE **50 to 1000 Volts**
CURRENT **6.0 Ampere**

FEATURES

- UL recognized
- High forward surge current capability
- Glass passivated chip junction
- High case dielectric strength
- High temperature soldering guaranteed: 260^{O}C / 10 seconds



MECHANICAL DATA

- Case: Transfer molded plastic
- Terminal: Lead solderable per MIL-STD-750 method 2026
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #6 screw, 5-in-lbs Torque max., (Note 2)
- Weight: 0.15 ounce, 4.0 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25^{O}C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	GBU6A	GBU6B	GBU6D	GBU6G	GBU6J	GBU6K	GBU6M	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, At T_C = 100^{O}C (Note 2 and 3)	$I_{(AV)}$	6.0							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	175							Amps
Rating for Fusing (t<8.3mS)	I^2t	127							A^2s
Maximum Instantaneous Forward Voltage drop per Bridge element 6.0A	V_F	1.0							Volts
Maximum DC Reverse Current at Rated T_A = 25 ^{O}C	I_R	5.0							µA
DC Blocking Voltage per element T_A = 125 ^{O}C		0.5							mA
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	211				94			pF
Typical Thermal Resistance (Note 2)	$R_{\theta Ja}$	7.4							^{O}C/W
Typical Thermal Resistance (Note 3)	$R_{\theta Jc}$	2.2							^{O}C/W
Operating Junction Temperature Range	T_J	(-55 to +150)							^{O}C
Storage Temperature Range	T_{STG}	(-55 to +150)							^{O}C

Notes:

1. Unit mounted on 2.6" x 1.4" x 0.11" (6.5cm x 3.5cm x 0.15cm) AL plate,
2. Recommended mounting position is to bolt down on heatsink using #6 screw and silicon thermal compound for maximum heat transfer

RATINGS AND CHARACTERISTIC CURVES GBU6A THRU GBU6M

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

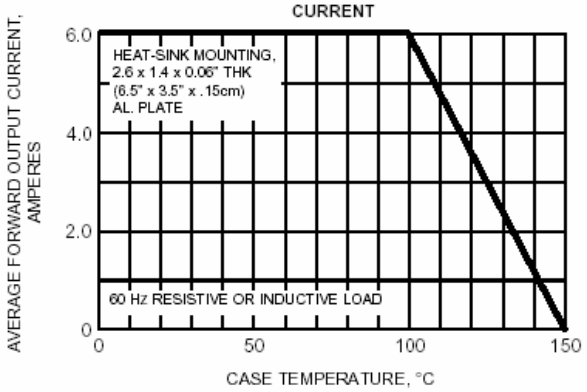


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

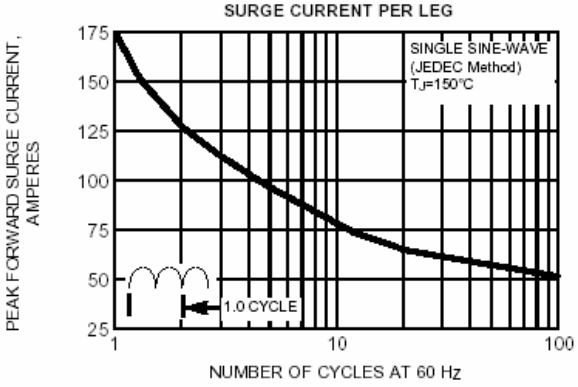


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

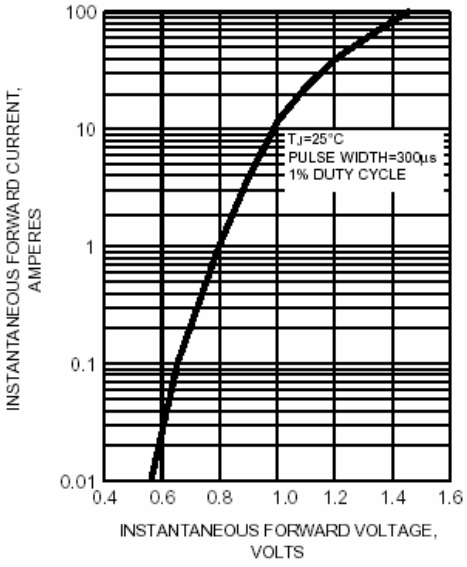


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

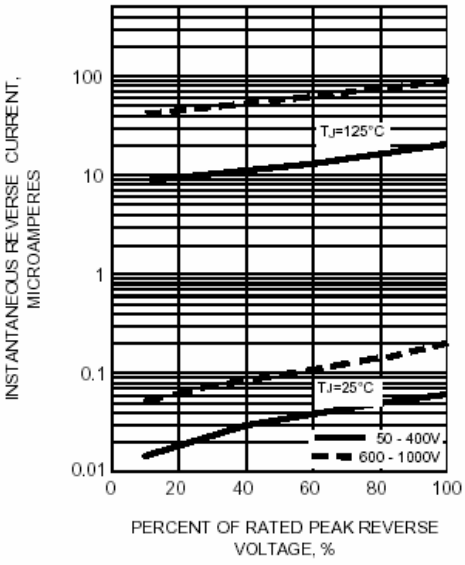


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

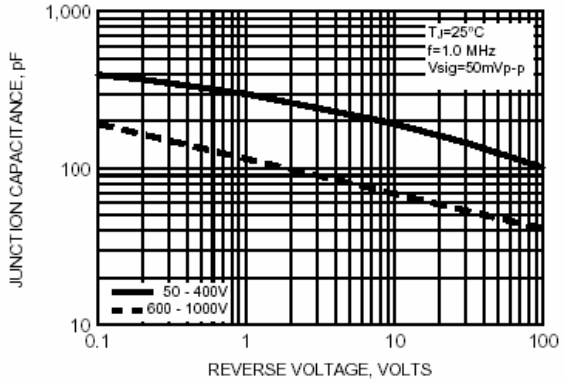


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE