GBU4A-GBU4M

GLASSN PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE RANGE: 50 - 1000V
CURRENT: 4.0 A

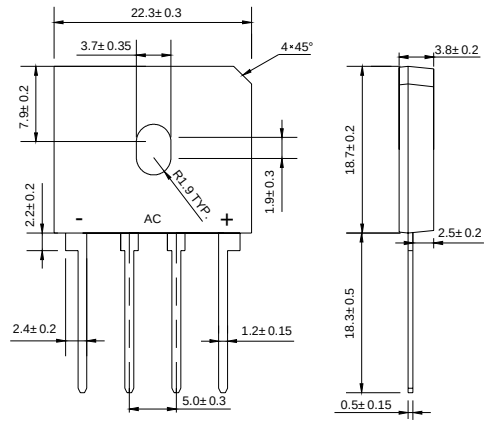
Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability

Mechanical Data

- Case: GBU, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 4.0 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 10 cm-kg (8.8 in-lbs) Max.

RoHS COMPLIANT



Dimensions in millimeters

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	GBU 4A	GBU 4B	GBU 4D	GBU 4G	GBU 4J	GBU 4K	GBU 4M	Unit
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_R	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current Tc = 100°C	$I_{F(AV)}$	4.0							A
Maximum Peak Forward Surge Current (50 Hz, Half-cycle, Sinwave, Single Shot)	I_{FSM}	80							A
Maximum Instantaneous Forward Voltage drop per leg at I_F = 4.0 A	V_F	1.0							V
Maximum DC Reverse Current Tj = 25 °C	I_R	5.0							µA
at Rated DC Blocking Voltage Tj = 100 °C	$I_{R(H)}$	500							µA
Typical junction Capacitance per leg (Note 3)	Cj	101				46			pF
Typical Thermal Resistance, Junction to Case (Note 1)	RθJC	2.5							°C/W
Typical Thermal Resistance, Junction to Ambient (Note 2)	RθJA	22							°C/W
Operating Junction and Storage Temperature Range	Tj , T_{STG}	- 55 to + 150							°C

Notes : 1. Unit case mounted on 1.6"x1.6"x0.06" THK (4.0x4.0x0.15cm) Al. Plate.
2. Units mounted on P.C. Board with 0.5"x0.5" (12mmx15mm) copper pads and 0.375"(9.5mm) lead lengths.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (GBU4A THRU GBU4M)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

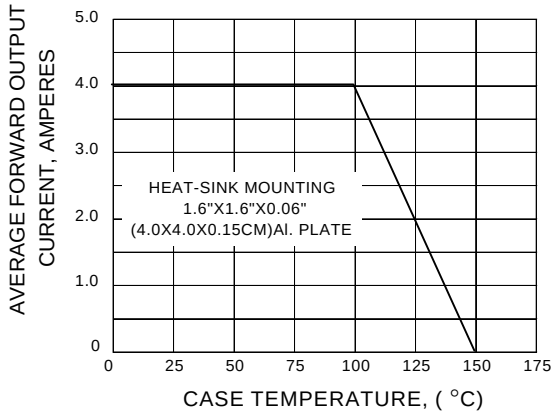


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER BRIDGE ELEMENT

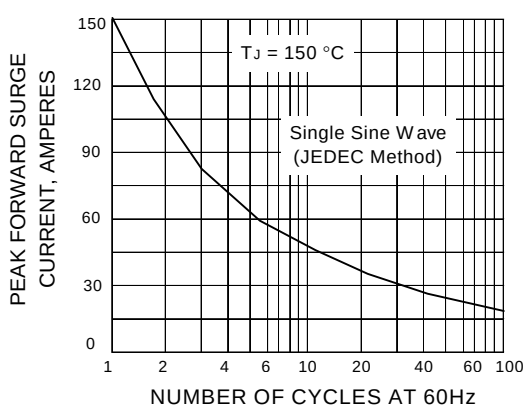


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

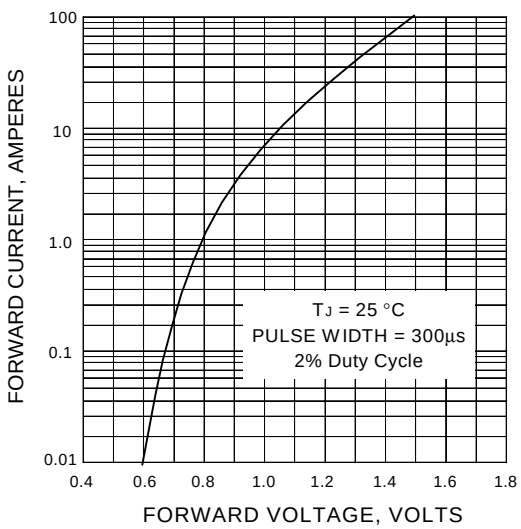


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT