

### **DATA SHEET**

## GBU10A~GBU10K

# GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER VOLTAGE - 50 to 800 Volts CURRENT - 10.0 Amperes

**GBU** 

Unit: inch ( mm )

#### **FEATURES**

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- · Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating: 200 Amperes peak
- High temperature soldering guaranteed:

260°C/10 seconds/.375"(9.5mm) lead length at 5 lbs. (2.3kg) tension

#### **MECHANICAL DATA**

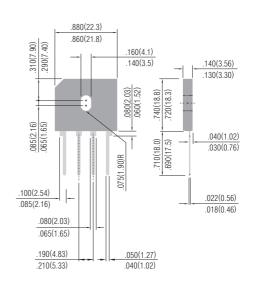
Case: Reliable low cost construction utilizing

molded plastic technique

Terminals: Leads solderable per MIL-STD-202,

Method 208

Mounting position: Any
Mounting torque: 5 in. lb. Max.
Weight: 0.15 ounce, 4.0 grams



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°Cambient temperature unless otherwise specified. Resistive or inductive load, 60Hz. For Capacitive load derate current by 20%.

	GBU10A	GBU10B	GBU10D	GBU10G	GBU10J	GBU10K	UNIT
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	V
Maximum RMS Input Voltage	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	V
Maximum Average Forward T <sub>C</sub> =100°C Rectified Output Current at	10.0						А
12t Rating for fusing ( t<8.35ms)	127						A <sup>2</sup> sec
Peak Forward Surge Current single sine-wave superimposed on rated load(JEDEC method)	200						Apk
Maximum Instantaneous Forward Voltage Drop per element at 5.0A	1.0						Vpk
Maximum Reverse Leakage at rated T <sub>A</sub> =25° CDc Blocking Voltage per element T <sub>C</sub> =100°C	5.0 500						μA μA
Typical Thermal Resistance per leg(Note 2) RθJA	8.6						°C /W
Typical Thermal Resistance per leg(Note 3) RθJC	3.1						°C /W
Operating and Storage Temperature Range, T <sub>J</sub> ,TSTG	-55+150						°C

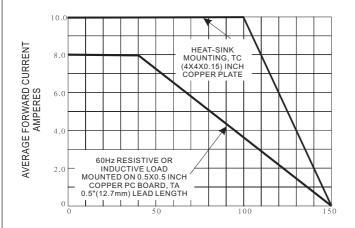
#### NOTES:

- 1. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.
- 2. Units Mounted in free air, no heatsink, P.C.B at 0.375"(9.5mm) lead length with  $0.5 \times 0.5"(12 \times 12mm)$ copper pads.
- 3. Units Mounted on a 2.6 x 1.4" x 0.06" thick (  $6.5 \times 3.5 \times 0.15$ cm) AL plate.

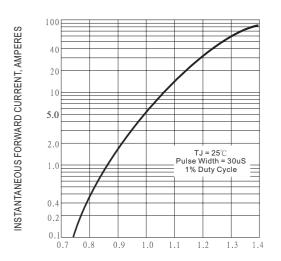
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#### RATING AND CHARACTERISTIC CURVES

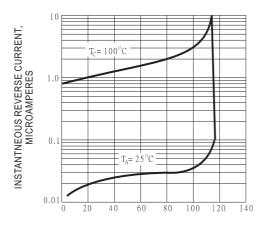


TEMPERATURE  ${\mathbb C}$  Fig.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT



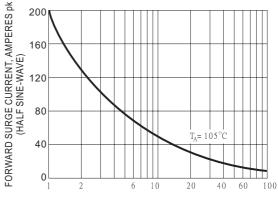
INSTANTANEOUS FORWARD VOLTAGE, VOLTS

Fig.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT



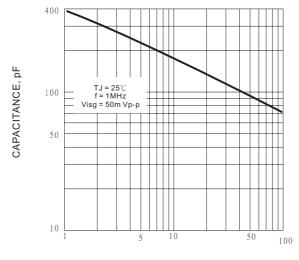
PERCENT OF PEAK REVERSE VOLTAGE

Fig.3 - TYPICAL REVERSE CHARACTERISTICS



NO. OF CYCLES AT 62Hz

Fig.4 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



REVERSE VOLTAGE, VOLTS

Fig.5 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT

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