

# GBU25005 THRU GBU2510

## GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

**REVERSE VOLTAGE:** 50 to 1000 VOLTS  
**FORWARD CURRENT:** 25.0 AMPERE

### FEATURES

- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability

### MECHANICAL DATA

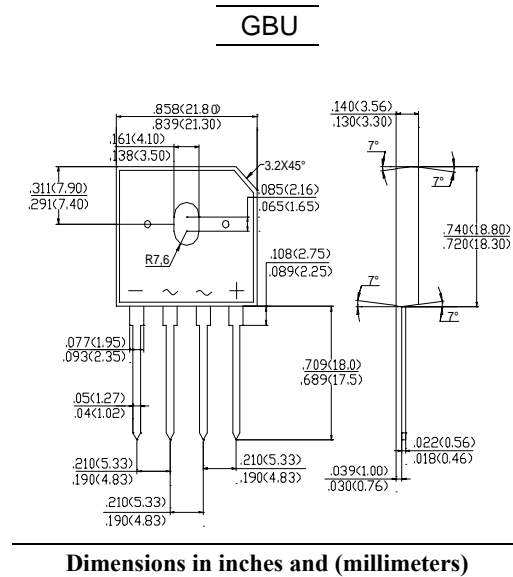
Case: Molded plastic, GBU

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed

Mounting position: Any

Weight: 0.23ounce, 6.6gram



### Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	GBU25005	GBU2501	GBU2502	GBU2504	GBU2506	GBU2508	GBU2510	Units
Maximum Recurrent 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 with Heatsink at $T_C=100$	$I_{(AV)}$	25.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	300							Amp
Maximum Forward Voltage Drop per Element at 12.5A DC and 25	$V_F$	1.05							Volts
Maximum Reverse Current at $T_A=25$ at Rated DC Blocking Voltage $T_A=125$	$I_R$	10.0 500							uAmp
Typical Junction Capacitance (Note 1)	$C_J$	85							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	0.6							/W
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150							

#### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance fromn Junction to Case with Device Mounted on 300mm x 300mm x 1.6mmCu Plate Heatsink.

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### RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

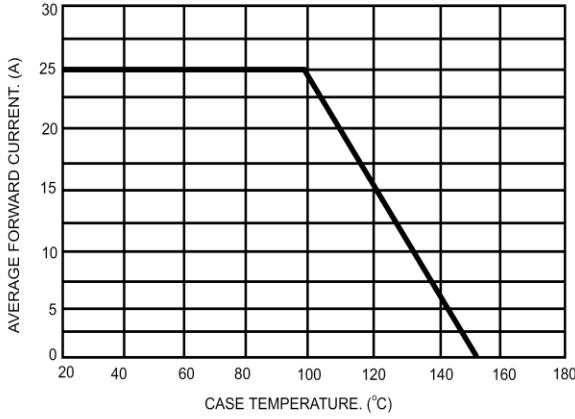


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

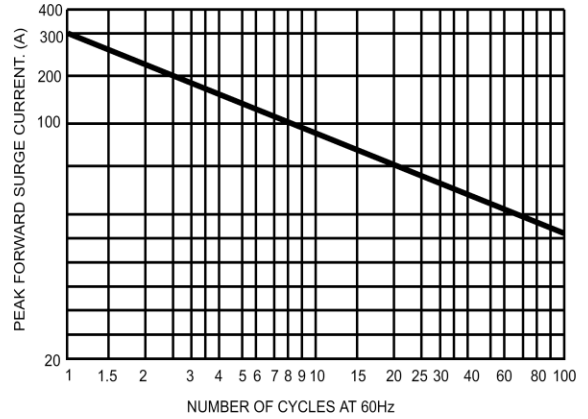


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

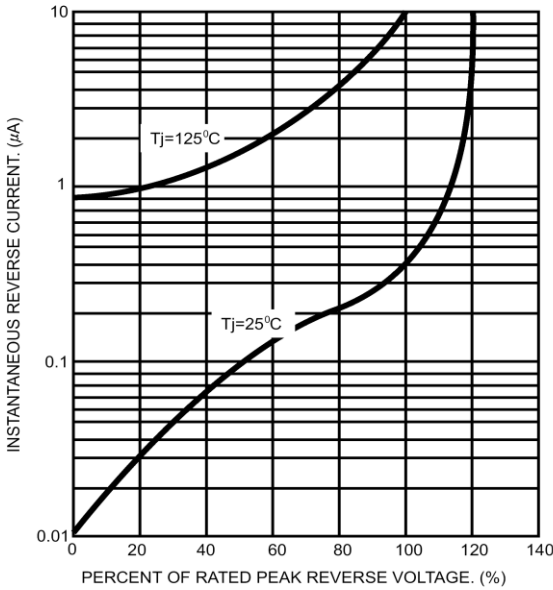


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

