

Glass Passivated Bridge Rectifiers



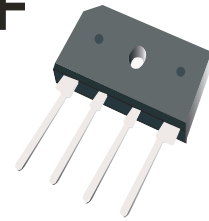
GBU25005-HF Thru. GBU2510-HF

Reverse Voltage: 50 to 1000V

Forward Current: 25.0A

RoHS Device

Halogen Free

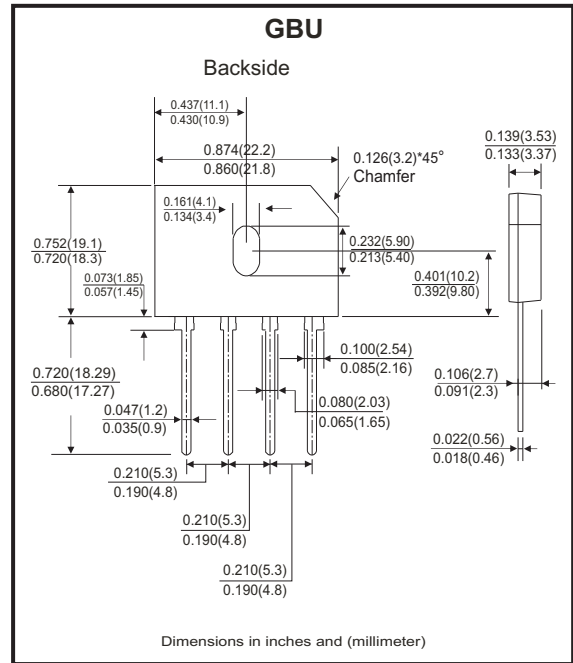


Features

- Glass passivated chip.
- Low forward voltage drop.
- Ideal for printed circuit board.
- High surge current capability.
- UL recognized file # E349301

Mechanical Data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: Molded plastic, GBU
- Mounting position: Any
- Weight: 3.91 grams (approx.).



Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

Parameter	Symbol	GBU 25005-HF	GBU 2501-HF	GBU 2502-HF	GBU 2504-HF	GBU 2506-HF	GBU 2508-HF	GBU 2510-HF	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_{DC}	50	100	200	400	600	800	1000	V	
Maximum Average Forward (With heatsink Note2) Rectified Current @ $T_c=100^\circ\text{C}$ (without heatsink)	$I_{(AV)}$	25						4.2		A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	I_{FSM}	350								A
Maximum Forward Voltage at 12.5A DC	V_F	1								V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ At Rate DC Blocking Voltage @ $T_J=125^\circ\text{C}$	I_R	5						500		μA
$I^2 T$ Rating for Fusing ($t < 8.3\text{ms}$)	$I^2 t$	508								A^2s
Typical Junction Capacitance Per Element (Note 1)	C_j	70								pF
Typical Thermal Resistance	$R_{\theta JC}$	2.2								$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150								$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150								$^\circ\text{C}$

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 100mm*100mm*1.6mm Cu plate heatsink.

Company reserves the right to improve product design, functions and reliability without notice.

REV: A

Rating and Characteristics Curves (GBU25005-HF Thru. GBU2510-HF)

Fig.1 - Derating Curve Output Rectified Current

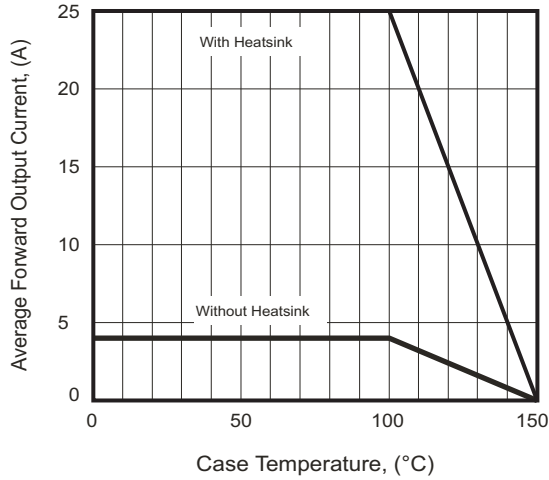


Fig.2 - Max. Forward Surge Current

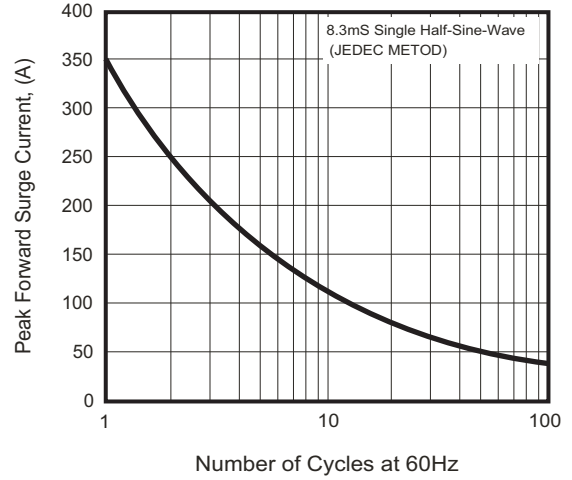


Fig.3 - Typical Forward Characteristics

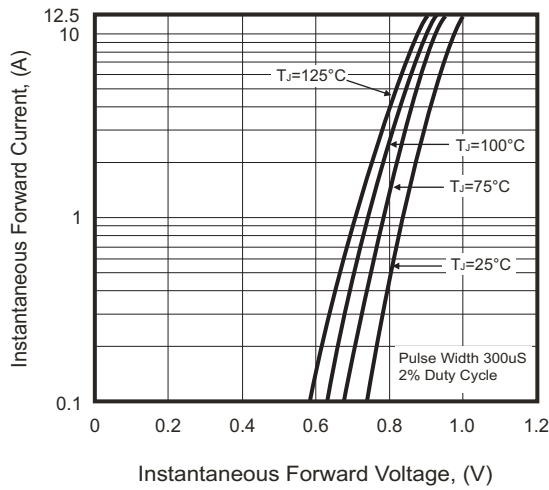


Fig.4 - Typical Reverse Characteristics

