

Glass Passivated Bridge Rectifiers



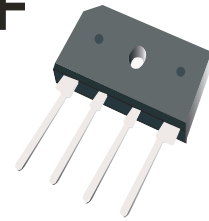
GBU25005-HF Thru. GBU2510-HF

Reverse Voltage: 50 to 1000V


Forward Current: 25.0A

RoHS Device

Halogen Free

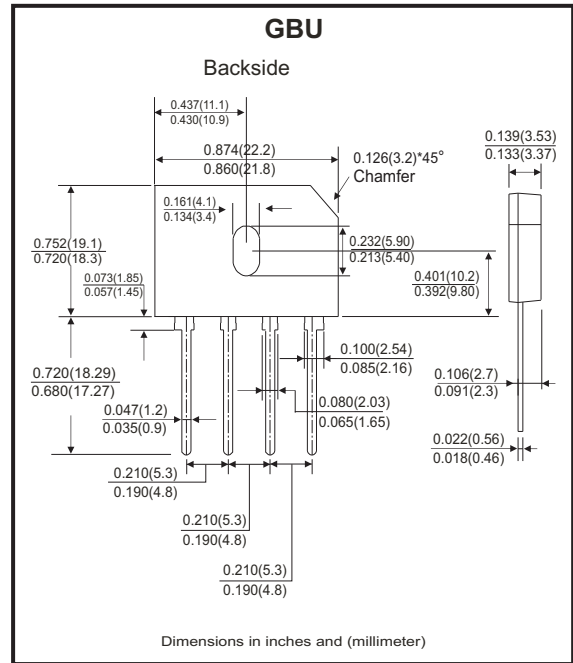


Features

- 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 @Tc=100°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 @Tj=25°C At Rate DC Blocking Voltage @Tj=125°C	I_R	5							500	μA
$I^2 T$ Rating for Fusing (t<8.3ms)	$I^2 t$	508								A ² s
Typical Junction Capacitance Per Element (Note 1)	C_j	70								pF
Typical Thermal Resistance	$R_{\theta JC}$	2.2								°C/W
Operating Temperature Range	T_J	-55 to +150								°C
Storage Temperature Range	T_{STG}	-55 to +150								°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

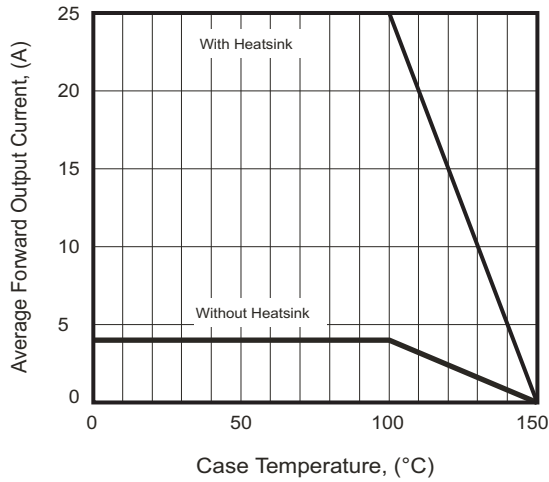


Fig.2 - Max. Forward Surge Current

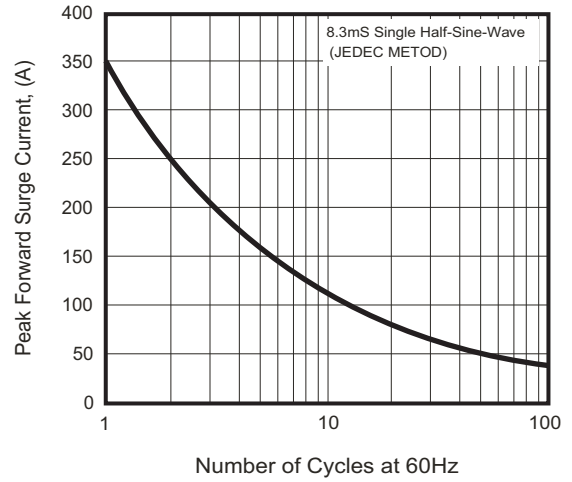


Fig.3 - Typical Forward Characteristics

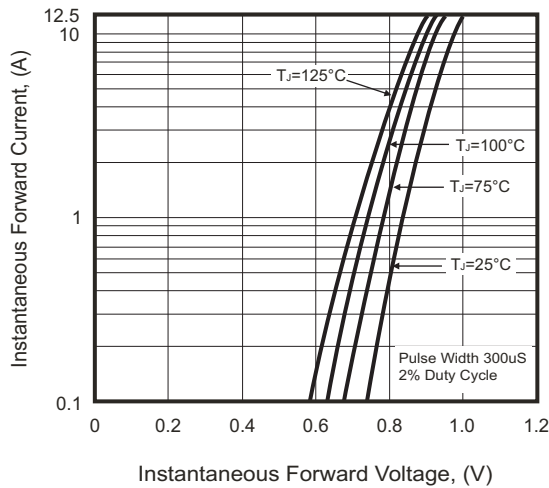


Fig.4 - Typical Reverse Characteristics

