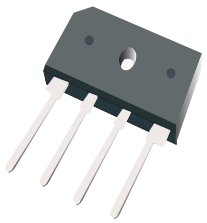
Glass Passivated Bridge Rectifiers

Comchip
SMD Diode Specialist

GBU25005-G Thru. GBU2510-G

Reverse Voltage: 50 to 1000V
Forward Current: 25.0A
RoHS Device

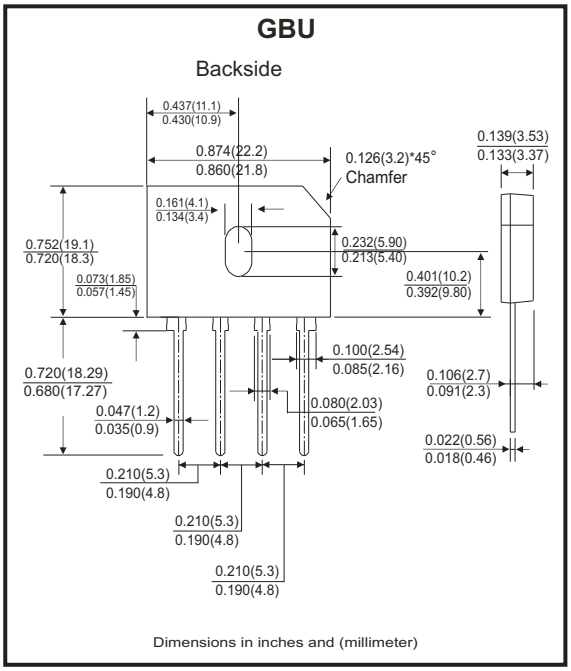


Features

-Surge overload rating -350 amperes peak.

-Ideal for printed circuit board.

-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-G	GBU 2501-G	GBU 2502-G	GBU 2504-G	GBU 2506-G	GBU 2508-G	GBU 2510-G	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)	$I_{(AV)}$	25.0 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	1.0							V
Maximum DC Reverse Current @T_J=25°C At Rate DC Blocking Voltage @T_J=125°C	I_R	10.0 500							μA
I^2T Rating for Fusing (t<8.3ms)	I^2t	508							A^2s
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.

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

Fig.1 - Derating Curve Output Rectified Current

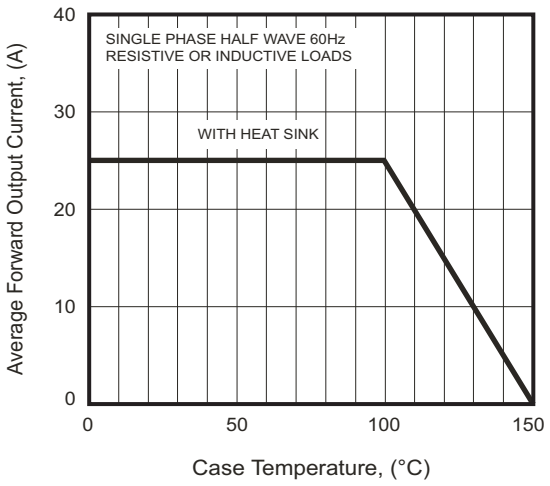


Fig.2 - Max. Forward Surge Current

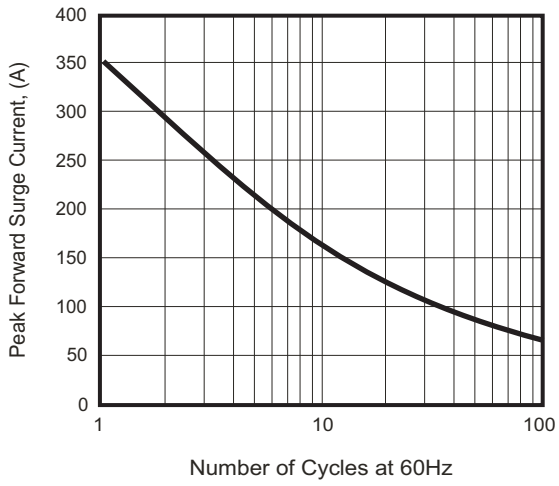


Fig.3 - Typical Forward Characteristics

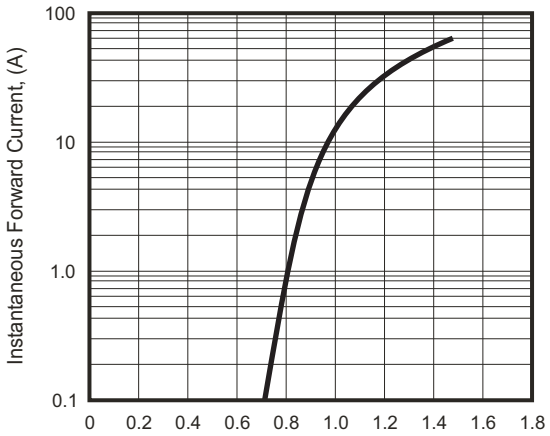


Fig.4 - Typical Reverse Characteristics