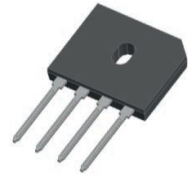


GSGBU601 thru GSGBU610

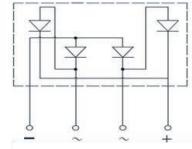
Glass Passivated Single-Phase Bridge Rectifiers
Reverse Voltage 100V to 1000V Forward Current 6.0A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High current capability
- Low forward voltage drop
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



Package: GBU



Schematic Diagram

Mechanical Data

- Case: GBU molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, method 2026
- Mounting position: Any

Applications

Used in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, charger, home appliances, office equipment and telecommunication applications.

Maximum Ratings and Electrical Characteristics

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

Parameters	Symbol	GS GBU601	GS GBU602	GS GBU604	GS GBU606	GS GBU608	GS GBU610	Units
Maximum Reverse Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current, (See Fig 2)	$I_{F(AV)}$	6.0						A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	175						A
Rating for Fusing (t=8.3ms)	I^2t	127						A ² S
Maximum Instantaneous Forward Voltage at 3.0A DC	V_F	1.00						V
Maximum DC Reverse Current at Rated DC blocking Voltage	I_R	5						μA
	I_R	100						μA
Typical Junction Capacitance ¹	C_J	50						pF
Typical Thermal Resistance, Junction-Ambient ²	$R_{\theta JA}$	25						°C/W
Typical Thermal Resistance, Junction-Case ²	$R_{\theta JC}$	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 1MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on 50mm x 50mm x 1.6mm copper plate heatsink.

GSGBU601 thru GSGBU610

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Ratings and Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

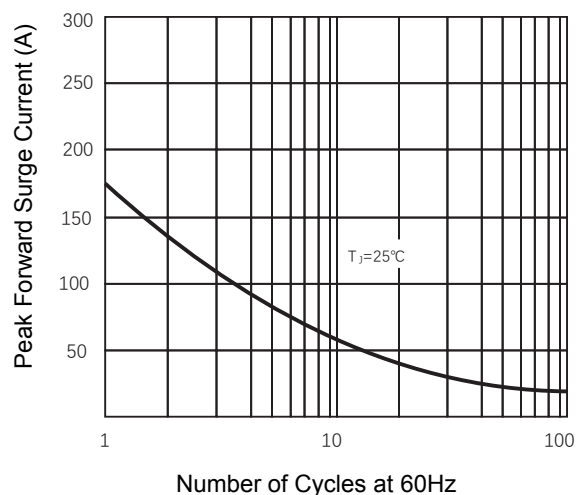


Figure 1. Maximum Forward Surge Current

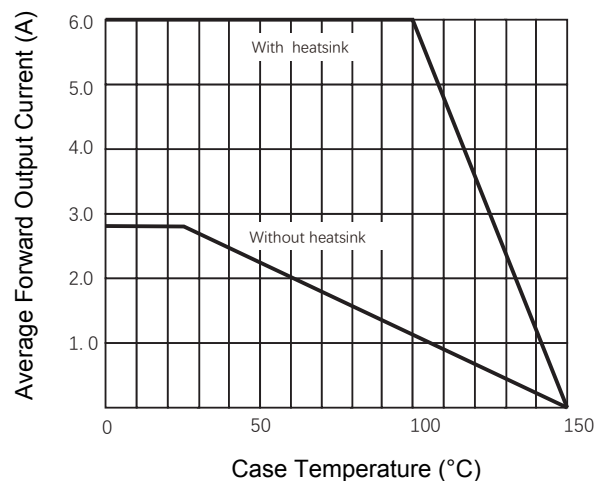


Figure 2. Forward Current Derating Curve

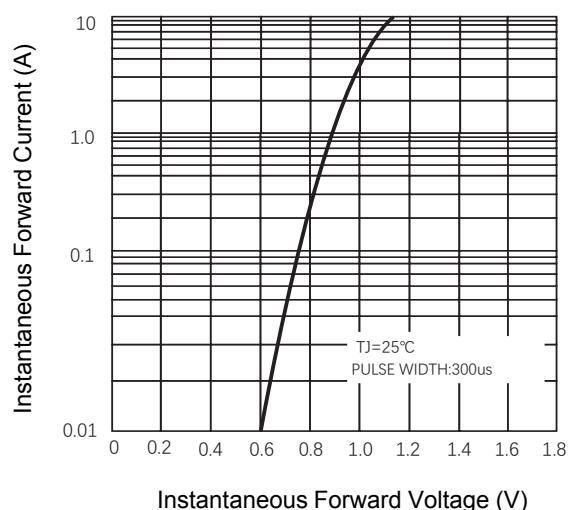


Figure 3. Typical Forward Characteristics

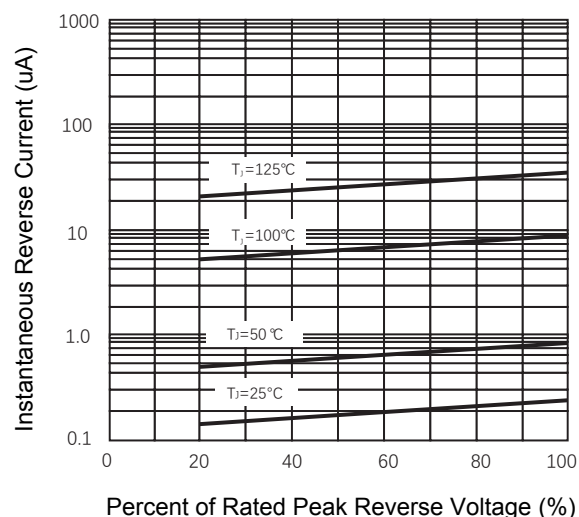
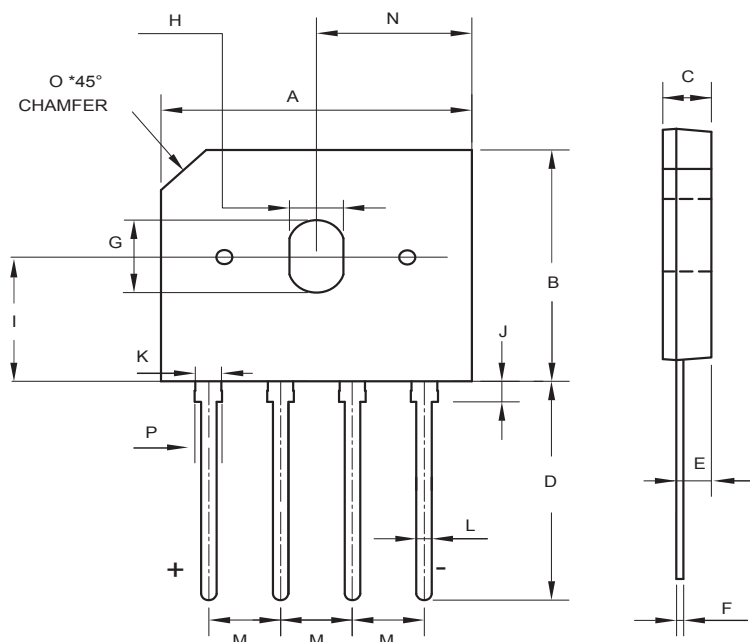


Figure 4. Typical Reverse Characteristics

GSGBU601 thru GSGBU610

Glass Passivated Single-Phase Bridge Rectifiers
Reverse Voltage 100V to 1000V Forward Current 6.0A

Package Outline Dimensions (GBU)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	21.80	22.20	0.860	0.874
B	18.30	18.70	0.720	0.736
C	3.35	3.55	0.132	0.140
D	17.50	18.50	0.689	0.728
E	2.30	2.70	0.091	0.106
F	0.42	0.52	0.017	0.020
G	5.50	6.30	0.217	0.248
H	3.50	4.10	0.138	0.161
I	9.50	10.50	0.374	0.413
J	2.40	2.60	0.094	0.102
K	2.05	2.25	0.081	0.089
L	1.05	1.25	0.041	0.049
M	4.83	5.33	0.190	0.210
N	10.90	11.10	0.430	0.437
O	3.20 TYP		0.126 TYP	
P	2.15	2.35	0.085	0.093