Single Phase Glass Passivated Silicon Bridge Rectifier

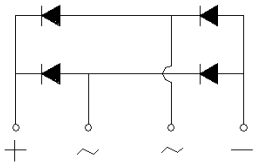
V_{RRM} = 50 V - 400 V

I_O = 15 A

Features

• Epoxy Resin material compliant with 94V-0 standards of UL UL Material Flammability Provisions
• Compliant with UL Provisions, UL Code: E303851
• Ideal for printed circuit boards
• High surge overload rating
• High temperature soldering guaranteed: 260ºC/ 10 seconds, 9.5 mm lead length
• Not ESD Sensitive

GBU Package



Mechanical Data

• Case: Epoxy resin body over passivated junctions
• Weight: 4.60 g
• Mounting position: Any

Maximum ratings at T_A = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	GBU15A	GBU15B	GBU15D	GBU15G	Unit
Repetitive peak reverse voltage	V_{RRM}		50	100	200	400	V
RMS reverse voltage	V_{RMS}		35	70	140	280	V
DC blocking voltage	V_{DC}		50	100	200	400	V
Operating temperature	T_j		-40 to 150	-40 to 150	-40 to 150	-40 to 150	°C
Storage temperature	T_{stg}		-40 to 150	-40 to 150	-40 to 150	-40 to 150	°C

Electrical characteristics at T_A = 25 °C, unless otherwise specified

Single phase, half sine wave, 50 Hz, resistive load
For capacitive load derate current by 20%

Parameter	Symbol	Conditions	GBU15A	GBU15B	GBU15D	GBU15G	Unit
Maximum forward rectified current	I_O	T_C = 100 °C T_A = 25 °C	15 (1) 3.8 (2)	15 (1) 3.8 (2)	15 (1) 3.8 (2)	15 (1) 3.8 (2)	A
Peak forward surge current	I_{FSM}	t_p = 10 ms, T_j = 25 °C	250	250	250	250	A
Maximum forward voltage drop	V_F	I_F = 7.5 A	1.05	1.05	1.05	1.05	V
Maximum reverse current at rated DC blocking voltage	I_R	T_A = 25 °C T_A = 125 °C	5 500	5 500	5 500	5 500	µA
Insulation strength (lead wire to case)	V_{dis}	AC voltage: 1 min leakage current<1mA	2.5	2.5	2.5	2.5	kV
Rating for fusing at T_j = 25 C	I^2t	1ms < t_p < 10 ms	80	80	80	80	A^2s
Typical thermal resistance	$R_{\theta JA}$ $R_{\theta JC}$		22 (2) 5.0 (1)	22 (2) 5.0 (1)	22 (2) 5.0 (1)	22 (2) 5.0 (1)	°C/W
Mounting Torque	M		0.8 (0.5 N.m is recommended)				N.m

[1] - Device mounted on 65 mm x 35 mm x 1.5 mm heatsink

[2] - Device mounted on PCB without heatsink

[3] - Recommended mounted position is to bolt down device on a heatsink with silicon thermal compound for maximum heat transfer using M3 screw.

Fig.1: Current Derating Curve

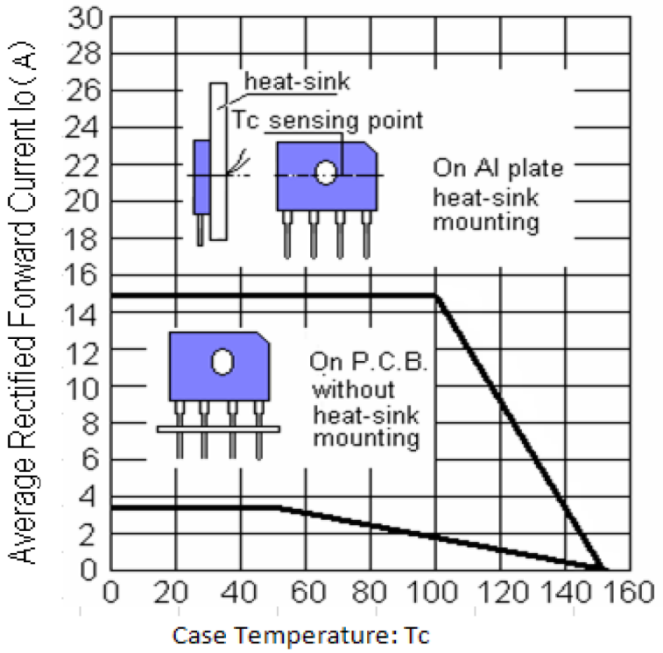


Fig.2: Typical Reverse Characteristics

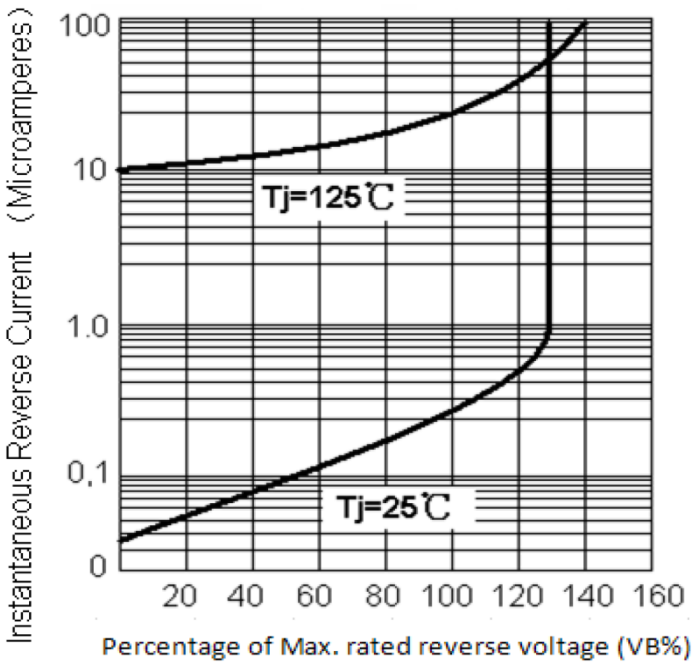


Fig.3: Max. Surge Current

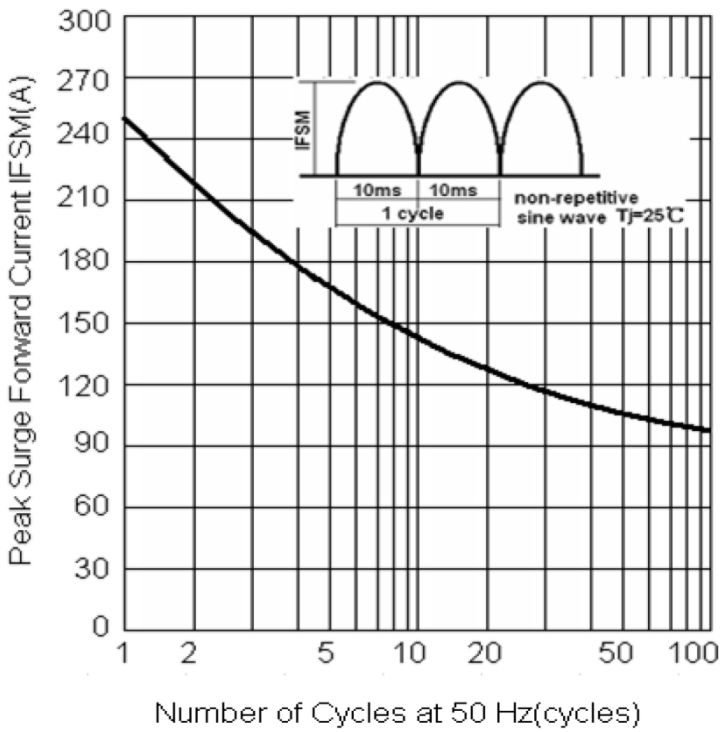
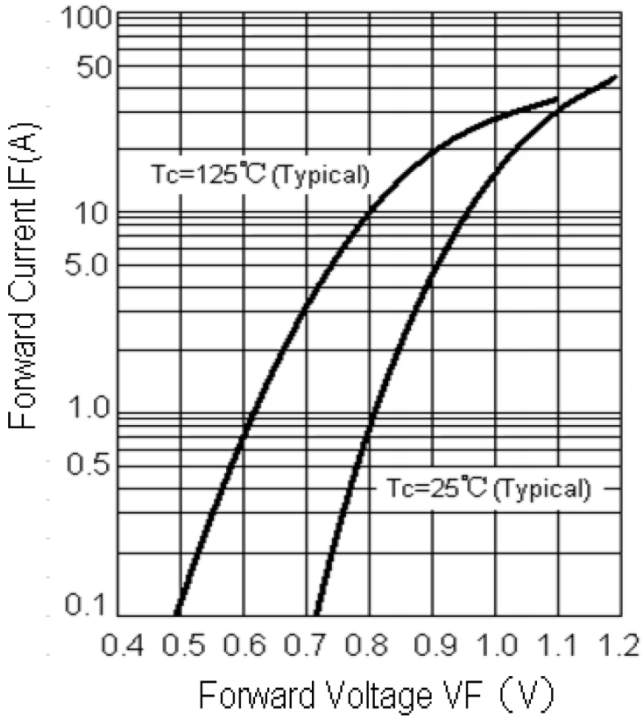


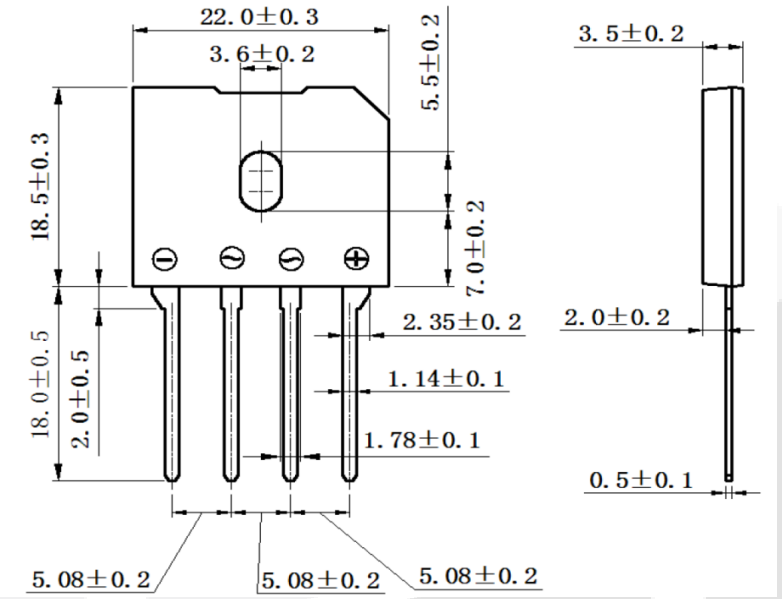
Fig.4: Rated Forward Features



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

GBU



Dimensions in millimeters