

GBU15J thru GBU15M

GBU Package

Single Phase Glass Passivated Silicon Bridge Rectifier

V_{RRM} = 600 V - 1000 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: 260°C/ 10 seconds,
- 9.5 mm lead length
- Not ESD Sensitive

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	GBU15J	GBU15K	GBU15M	Unit
Repetitive peak reverse volta	ge V _{RRM}		600	800	1000	V
RMS reverse voltage	V _{RMS}		420	560	700	V
DC blocking voltage	V _{DC}		600	800	1000	V
Operating temperature	Tj		-40 to 150	-40 to 150	-40 to 150	°C
Storage temperature	T _{stg}		-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	GBU15J	GBU15K	GBU15M	Unit
Maximum forward rectified current	Ι _ο	T _C = 100 °C	15 ⁽¹⁾	15 ⁽¹⁾	15 ⁽¹⁾	А
		T _A = 25 °C	3.8 (2)	3.8 ⁽²⁾	3.8 (2)	
Peak forward surge current	I _{FSM}	t _p = 10 ms, T _j = 25 °C	250	250	250	А
Maximum forward voltage drop	V _F	I _F = 7.5 A	1.05	1.05	1.05	V
Maximum reverse current at rated DC	l _R	T _A = 25 °C	5	5	5	μA
blocking voltage		T _A = 125 °C	500	500	500	
Insulation strength (lead wire to case)	V _{dis}	AC voltage: 1 min leakage current<1mA	2.5	2.5	2.5	kV
Rating for fusing at $T_j = 25 C$	l ² t	1ms < t _p < 10 ms	80	80	80	A ² s
	$R_{\Theta J A}$		22 ⁽²⁾	22 ⁽²⁾	22 ⁽²⁾	°C/W
Typical thermal resistance	$R_{\Theta JC}$		5.0 ⁽¹⁾	5.0 ⁽¹⁾	5.0 ⁽¹⁾	
Mounting Torque	М		0.8 (0.5 N.m is recommended)			N.m

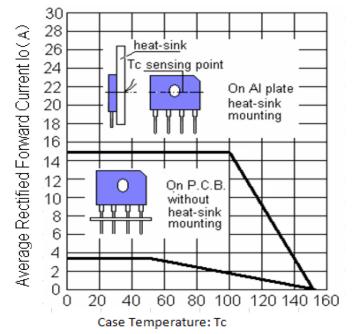
¹ - Device mounted on 65 mm x 35 mm x 1.5 mm heatsink

² - Device mounted on PCB without heatsink

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



Fig.1: Current Derating Curve



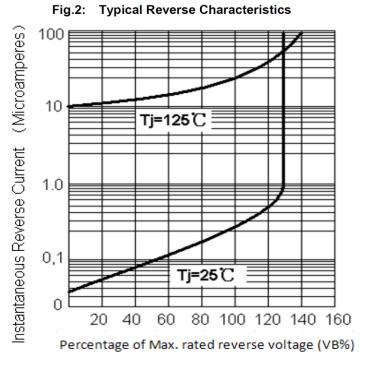
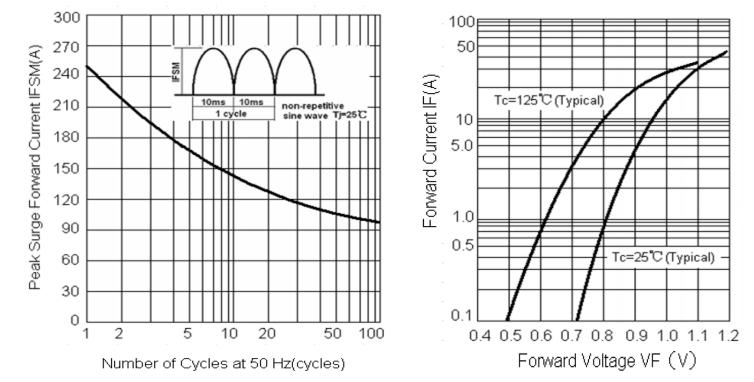


Fig.3: Max. Surge Current







Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

