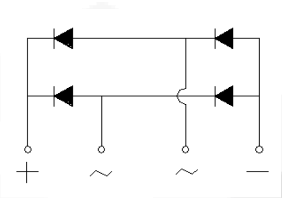
Single Phase Glass Passivated Silicon Bridge Rectifier

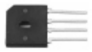
V_{RRM} = 600 V -1000 V
I_O = 15 A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High case dielectric strength of 1500 V_{RMS}
- Glass passivated chip junction
- Ideal for printed circuit boards
- High surge overload rating
- High temperature soldering guaranteed: 260°C/ 10 seconds, 0.375 (9.5mm) lead length
- Not ESD Sensitive

GBU Package





Mechanical Data

Case: Molded plastic body over passivated junctions

Terminals: Plated leads, solderable per MIL-STD-750 Method 2026.

Mounting position: Any

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

Parameter	Symbol	Conditions	GBU15J	GBU15K	GBU15M	Unit
Repetitive peak reverse voltage	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	T_j		-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	°C

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

Single phase, half sine wave, 60 Hz, resistive or inductive load.
For capacitive load derate current by 20%.

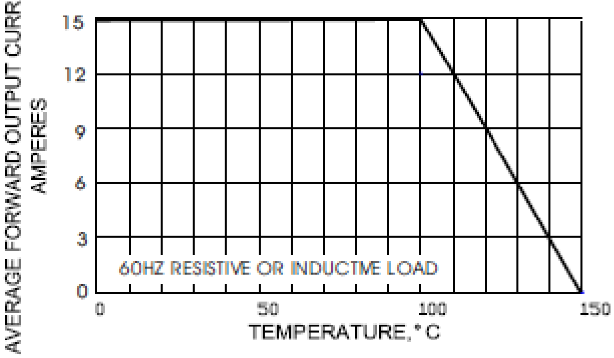
Parameter	Symbol	Conditions	GBU15J	GBU15K	GBU15M	Unit
Maximum average forward rectified current [1,2]	I_O	T_c = 100 °C	15.0	15.0	15.0	A
Peak forward surge current	I_{FSM}	t_p = 8.3 ms, half sine	240	240	240	A
Maximum instantaneous forward voltage drop per leg	V_F	I_F = 15 A	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg	I_R	T_a = 25 °C T_a = 125 °C	5 500	5 500	5 500	µA
Typical junction capacitance per leg [3]	C_j		80	80	80	pF
Typical thermal resistance per leg [1,2]	$R_{\theta JC}$		2.2	2.2	2.2	°C/W

[1] - Device mounted on 100 mm x 100 mm x 1.6 mm Cu plate heatsink

[2] - Recommended mounted position is to bolt down device on a heatsink with silicon thermal compond for maximum heat transfer using #6 screw.

[3] - Measured at 1.0 MHz and applied reverse bias of 4.0 V

FIG.1-DERATIVE CURVE FOR OUTPUT RECTIFIER CURRENT



FIG, 2 - MAXIMUN NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

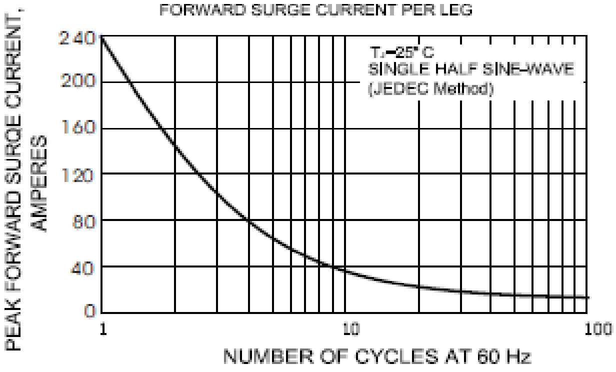


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER LEG

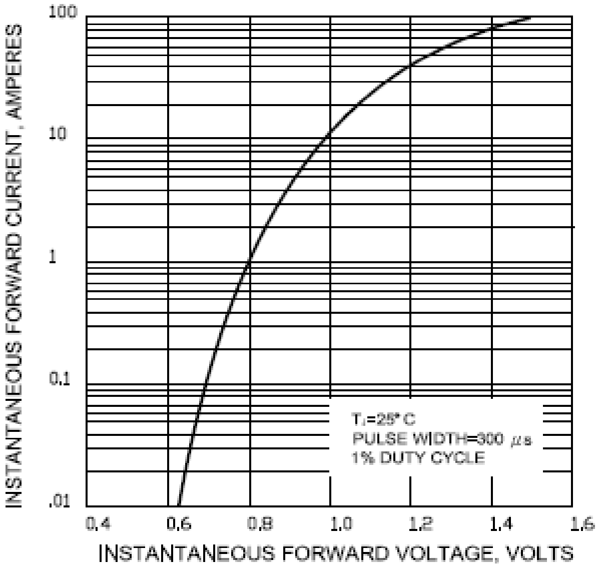
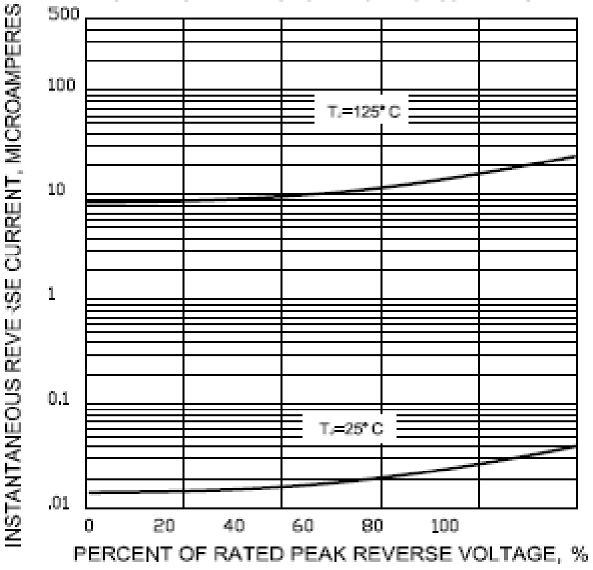


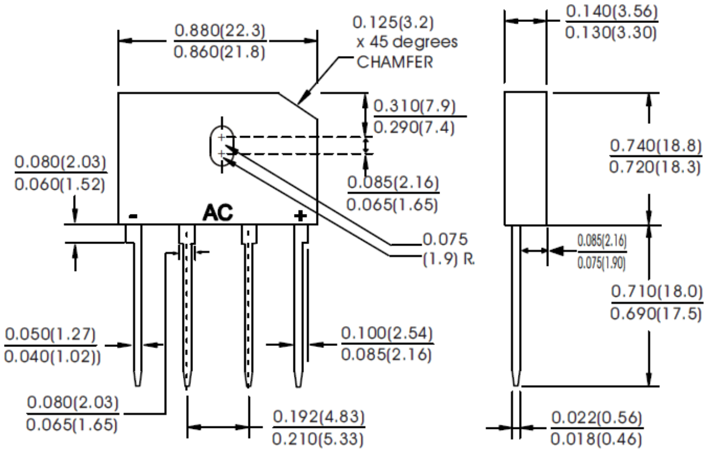
FIG.4-TYPICAL REVERSE CHARACTERISTICS PER LEG



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

GBU



Dimensions in inches and (millimeters)