

Single Phase Glass Passivated Silicon Bridge Rectifier

 $V_{RRM} = 600\text{ V} - 1000\text{ V}$
 $I_O = 6\text{ A}$

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

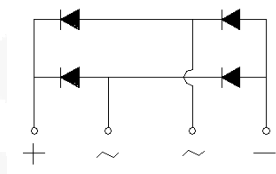
Mechanical Data

Case: Molded plastic body over passivated junctions

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

Mounting position: Any

GBU Package



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

Parameter	Symbol	Conditions	GBU6J	GBU6K	GBU6M	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 T_c = 25 °C, unless otherwise specified

Single phase, half sine wave, 60 Hz, resistive or inductive load.

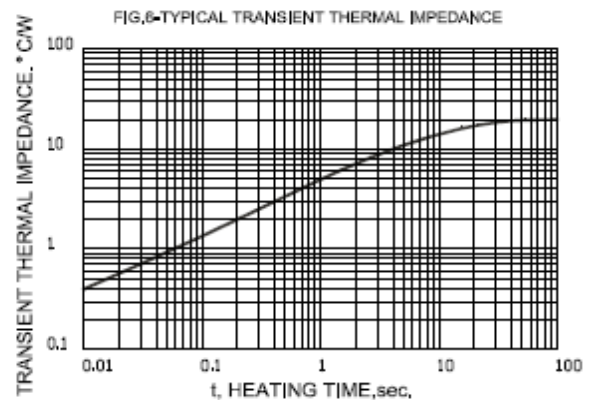
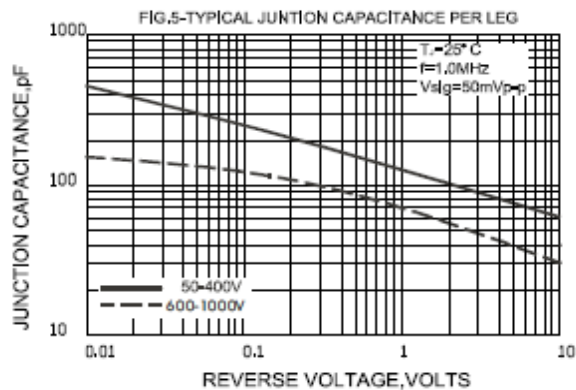
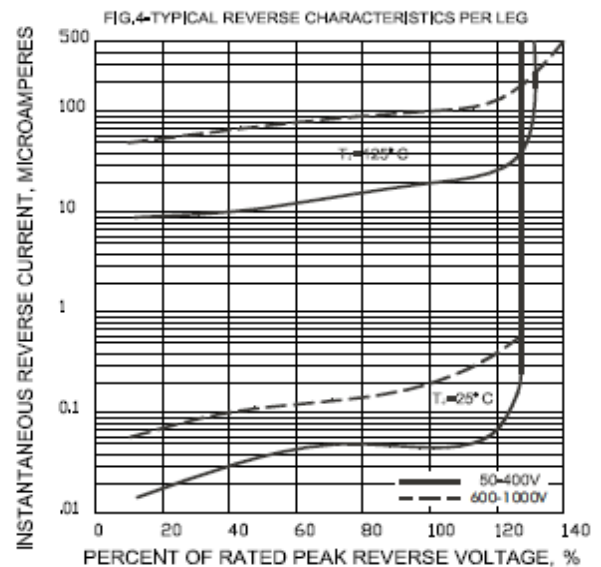
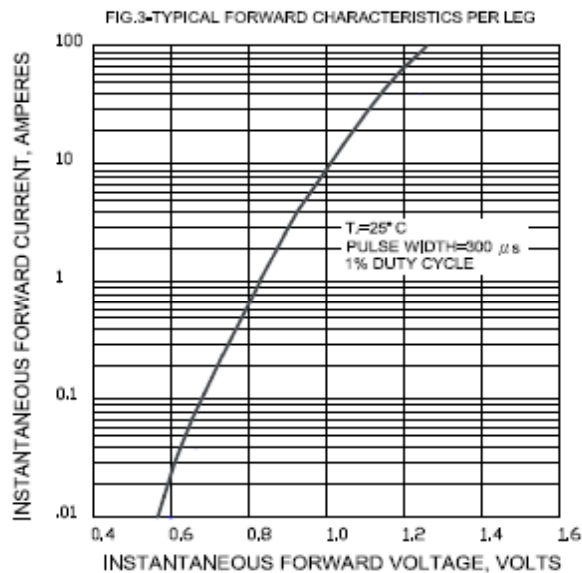
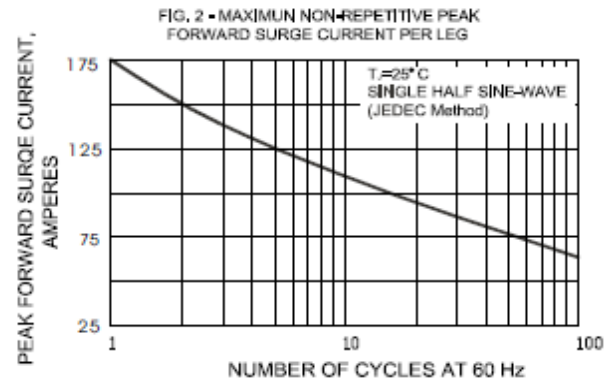
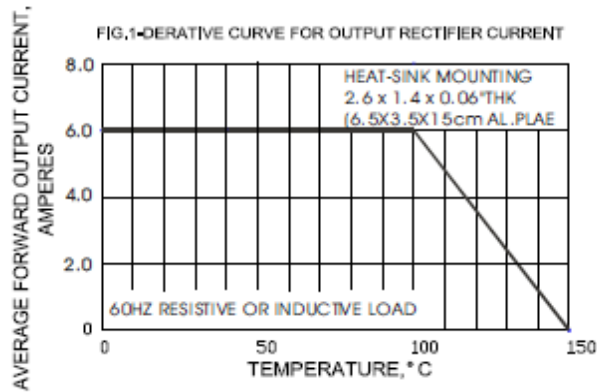
For capacitive load derate current by 20%.

Parameter	Symbol	Conditions	GBU6J	GBU6K	GBU6M	Unit
Maximum average forward rectified current ^{1,2}	I_O	$T_c = 100\text{ °C}$	6.0	6.0	6.0	A
Peak forward surge current	I_{FSM}	$t_p = 8.3\text{ ms}$, half sine	175	175	175	A
Maximum instantaneous forward voltage drop per leg	V_F	$I_F = 6\text{ A}$	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg	I_R	$T_a = 25\text{ °C}$ $T_a = 125\text{ °C}$	5 500	5 500	5 500	μA
Rating for fusing	I^2t	$t < 8.3\text{ ms}$	127	127	127	A ² sec
Typical junction capacitance per leg ³	C_j		94	94	94	pF
Typical thermal resistance per leg ^{1,2}	$R_{\theta JA}$		7.4	7.4	7.4	°C/W
	$R_{\theta JL}$		2.2	2.2	2.2	

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

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

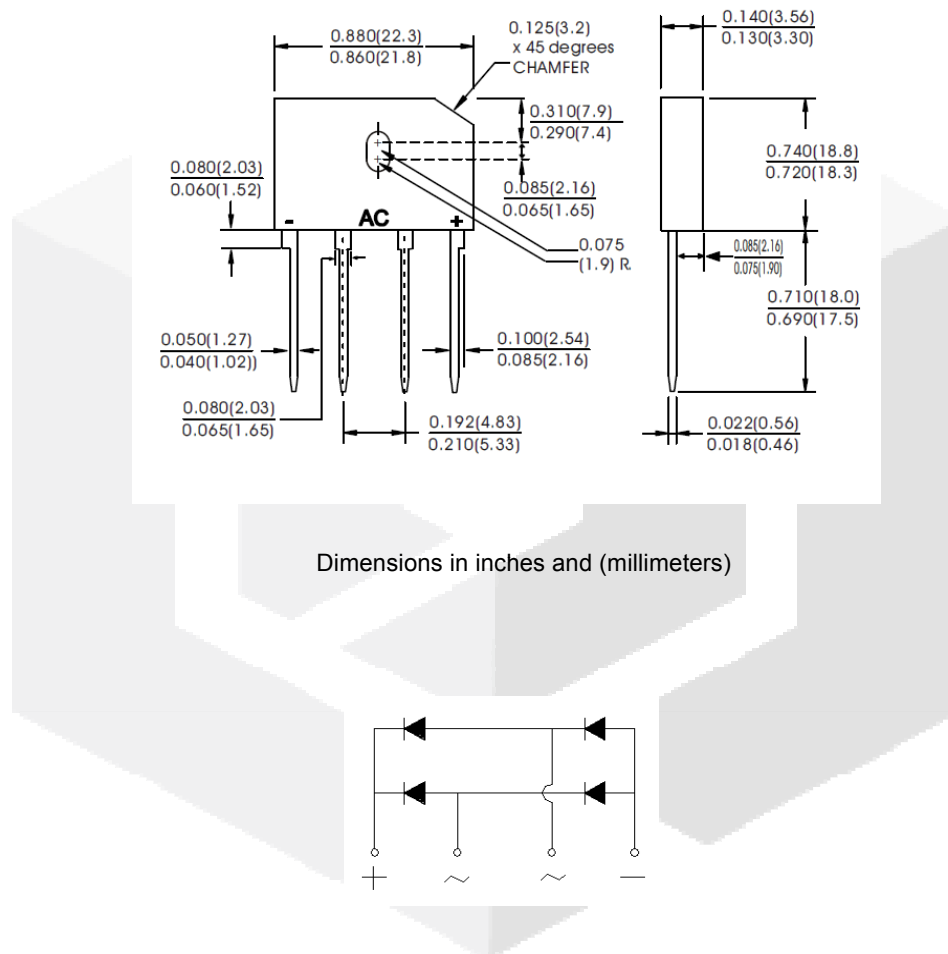
³ - Measured at 1.0 MHz and applied reverse bias of 4.0 V



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

GBU



Dimensions in inches and (millimeters)