

Single Phase Glass Passivated Silicon Bridge Rectifier

$V_{RRM} = 50\text{ V} - 400\text{ V}$

$I_O = 4\text{ A}$

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

Maximum ratings at $T_c = 25\text{ °C}$, unless otherwise specified

Parameter	Symbol	Conditions	GBU4A	GBU4B	GBU4D	GBU4G	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		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C

Electrical characteristics at $T_c = 25\text{ °C}$, unless otherwise specified

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

For capacitive load derate current by 20%

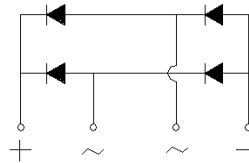
Parameter	Symbol	Conditions	GBU4A	GBU4B	GBU4D	GBU4G	Unit
Maximum average forward rectified current ^{1,2}	I_O	$T_c = 100\text{ °C}$	4.0	4.0	4.0	4.0	A
Peak forward surge current	I_{FSM}	$t_p = 8.3\text{ ms}$, half sine	150	150	150	150	A
Maximum instantaneous forward voltage drop per leg	V_F	$I_F = 4\text{ A}$	1.1	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg	I_R	$T_a = 25\text{ °C}$	5	5	5	5	μA
		$T_a = 125\text{ °C}$	500	500	500	500	
Rating for fusing	I^2t	$t < 8.3\text{ ms}$	93	93	93	93	A^2sec
Typical junction capacitance per leg ³	C_j		100	100	100	100	pF
Typical thermal resistance per leg ^{1,2}	$R_{\theta JA}$		22	22	22	22	°C/W
	$R_{\theta JL}$		4.2	4.2	4.2	4.2	

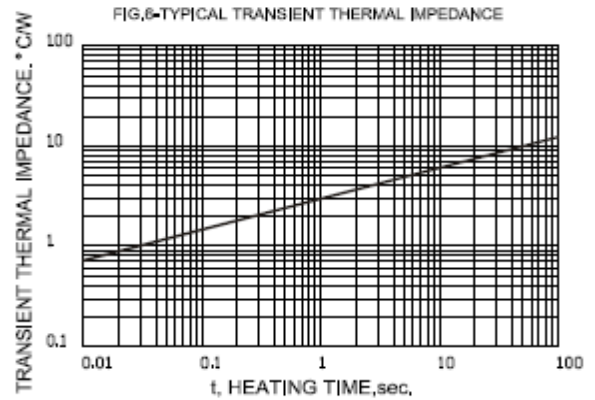
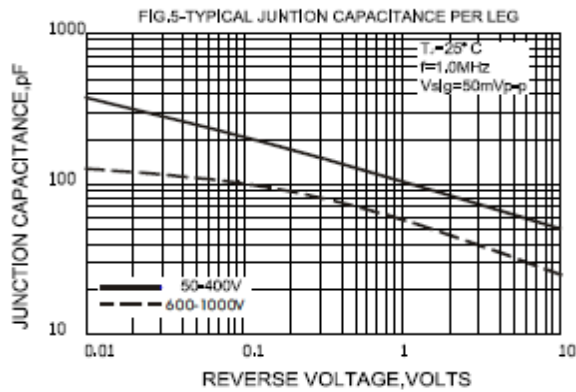
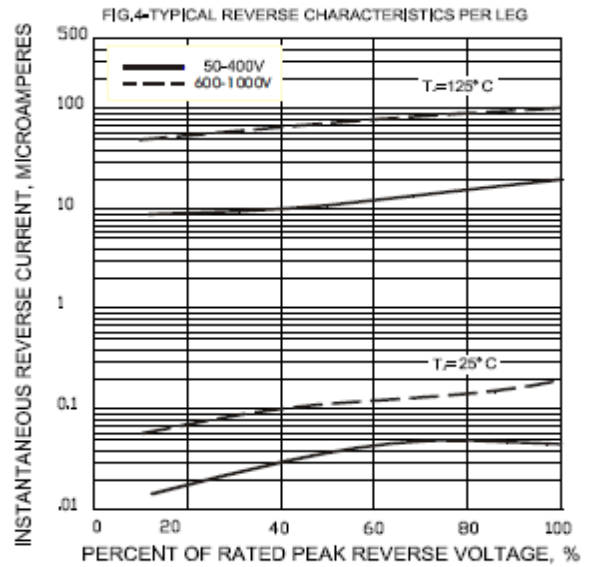
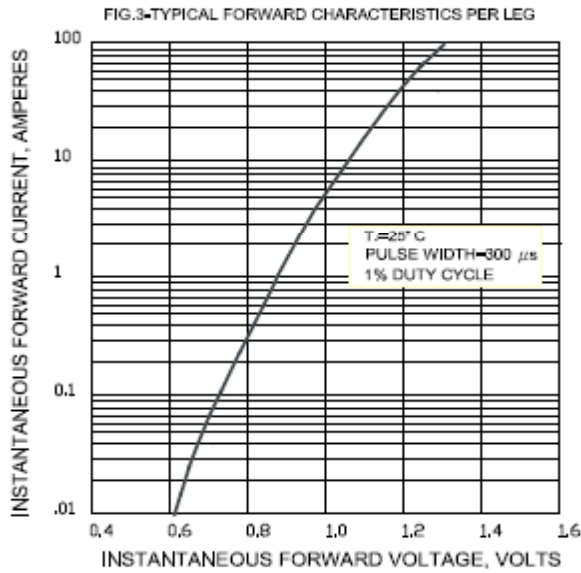
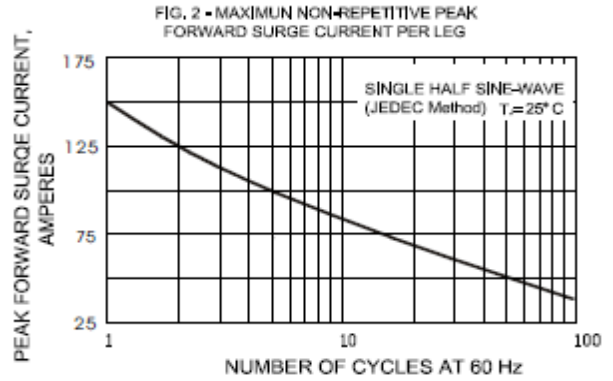
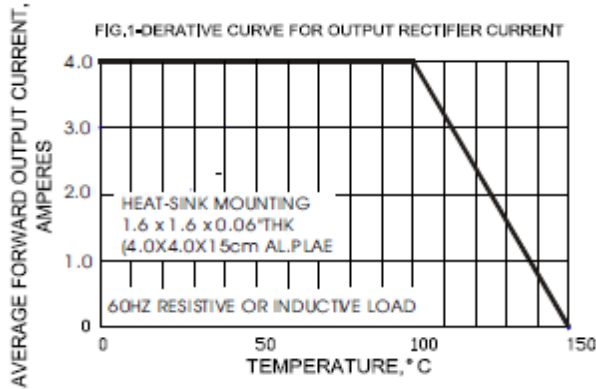
¹ - Device mounted on 40 mm x 40 mm x 1.5 mm Al plate heatsink

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

GBU Package

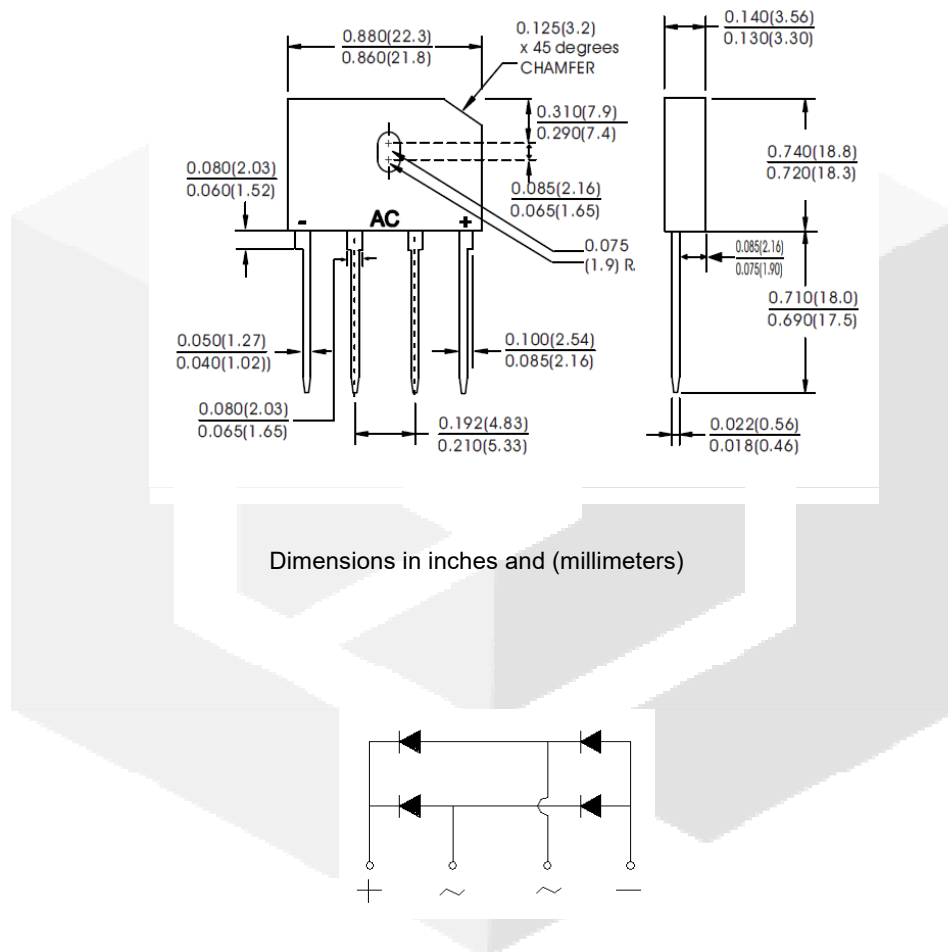




Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

GBU



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