

Single Phase Glass Passivated Silicon Bridge Rectifier

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

$I_O = 10 \text{ A}$

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

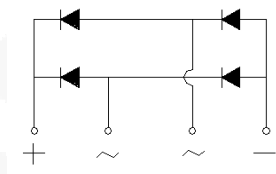
Mechanical Data

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 $T_c = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	GBU10J	GBU10K	GBU10M	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 $T_c = 25^\circ\text{C}$, unless otherwise specified

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

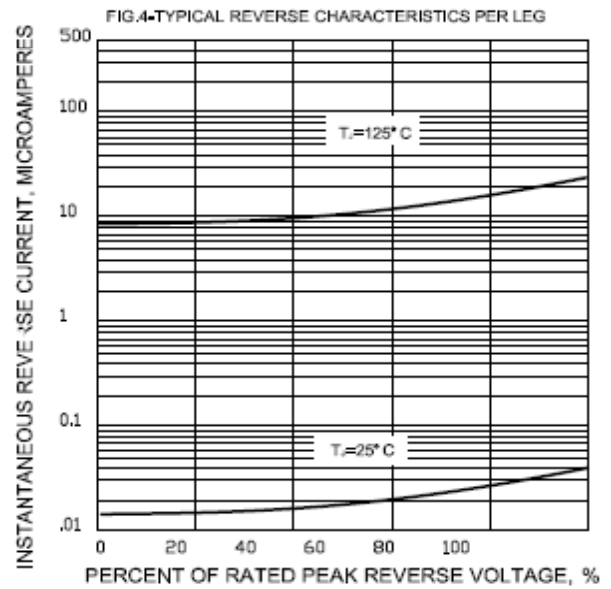
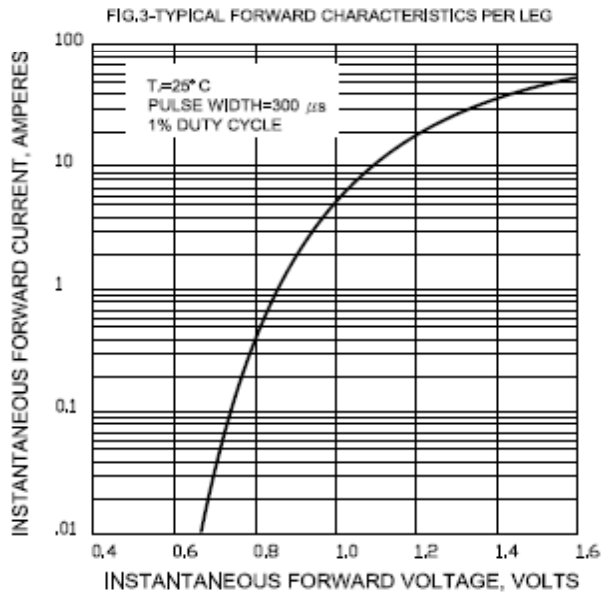
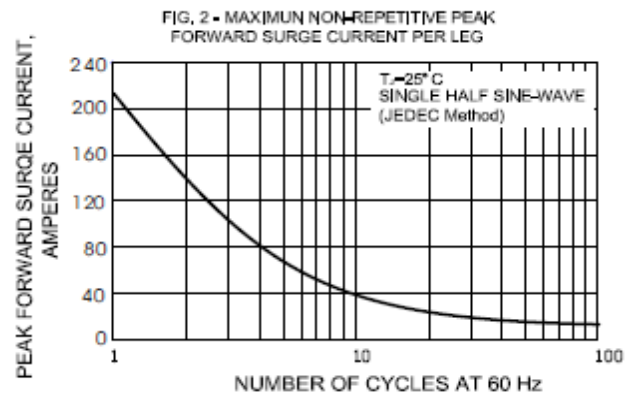
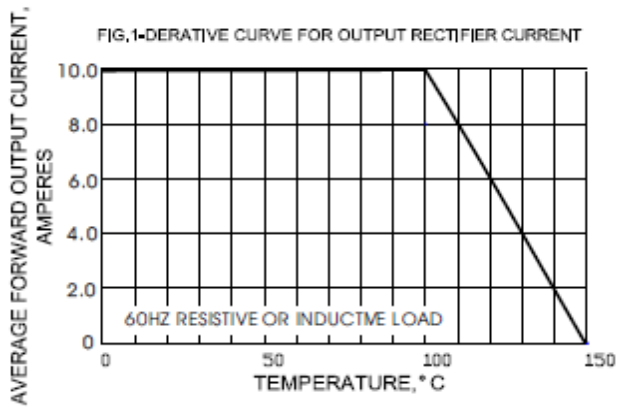
For capacitive load derate current by 20%.

Parameter	Symbol	Conditions	GBU10J	GBU10K	GBU10M	Unit
Maximum average forward rectified current ^{1,2}	I_O	$T_c = 100^\circ\text{C}$	10.0	10.0	10.0	A
Peak forward surge current	I_{FSM}	$t_p = 8.3 \text{ ms}$, half sine	220	220	220	A
Maximum instantaneous forward voltage drop per leg	V_F	$I_F = 10 \text{ A}$	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg	I_R	$T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	5 500	5 500	5 500	μA
Typical junction capacitance per leg ³	C_j		70	70	70	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 compound for maximum heat transfer using #6 screw.

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



Product is marked with part number and terminal configuration.

Figure 1: Dimensioned drawings of the test specimens. The figure shows three views of a mechanical part: a top view, a side view, and a cross-sectional view. The top view shows a rectangular block with a central circular hole and four vertical slots. Dimensions include overall width (0.880/22.3), hole diameter (0.125/3.2), and slot widths (0.080/2.03). The side view shows the height (0.310/7.9) and a chamfer (0.125/3.2 x 45 degrees). The cross-sectional view shows the internal structure with a central hole and four vertical slots, with dimensions for slot widths (0.080/2.03) and hole diameter (0.125/3.2).

Dimensions in inches and (millimeters)

