

50A GLASS PASSIVATED BRIDGE RECTIFIER Reverse

Voltage - 100 to 1000 V

Forward Current – 50A

FEATURES

- ◆ Surge overload rating-400 amperes peak
- ◆ Polarity:As marked on body
- ◆ Ideal for printed circuit board
- ◆ Plastic material has U/L

The flammability classification 94V-0

- ◆ Reliable low cost construction utilizing molded plastic technique

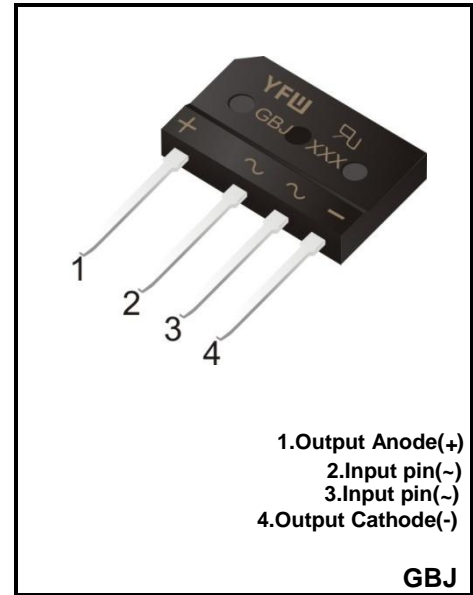
MECHANICAL DATA

- ◆ Case: GBJ
- ◆ Terminals: Solderable per MIL-STD-202, Method 208
- ◆ Approx. Weight: 6.79g /0.24oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

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



Parameter	Symbols	GBJ5001G	GBJ5002G	GBJ5004G	GBJ5006G	GBJ5008G	GBJ5010G	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	50						A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	400						A
Forward Voltage per element @ $I_F = 25A$ DC	V_F	1.0						V
Maximum DC Reverse Current @ $T_J = 25^{\circ}C$ at Rated DC Blocking Voltage @ $T_J = 125^{\circ}C$	I_R	5 500						μA
I^2t Rating for Fusing($3ms \leq t \leq 8.3ms$)	I^2t	664						A^2S
Typical Junction Capacitance ^(Note1)	C_j	140						pF
Typical Thermal Resistance ^(Note2)	$R_{\theta JC}$	1.0						$^{\circ}C/W$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						$^{\circ}C$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) Device mounted on 75mm*75mm*1.6mm cu plate heatsink

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

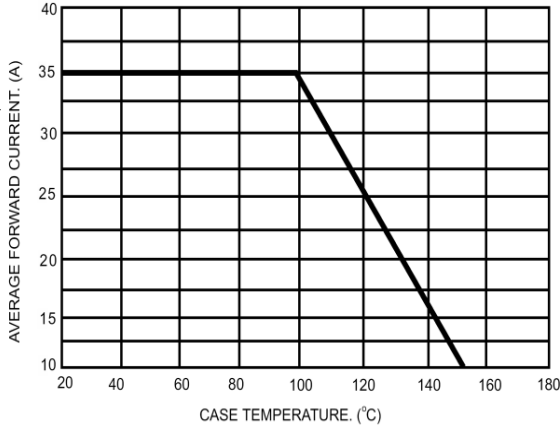


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

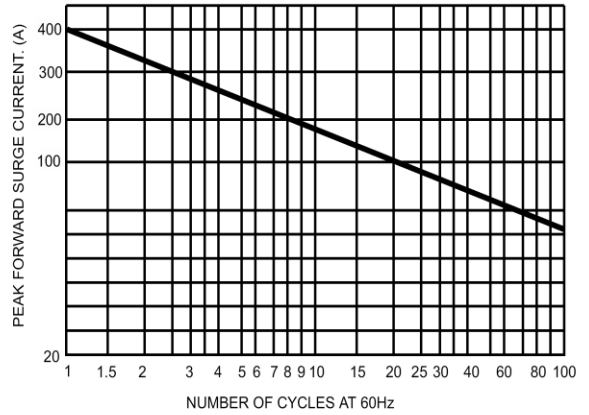


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

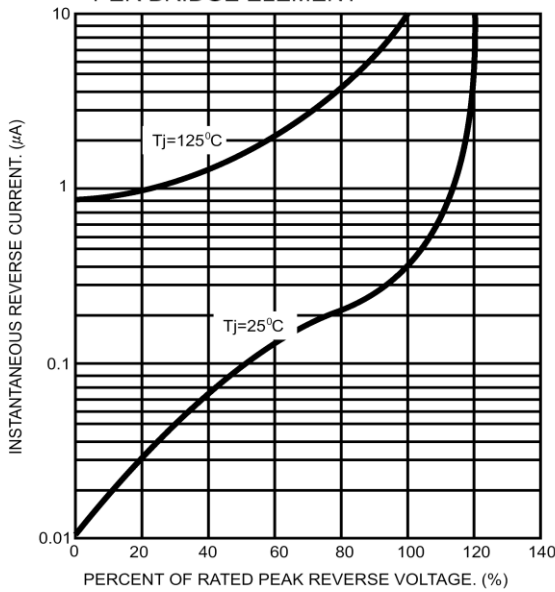
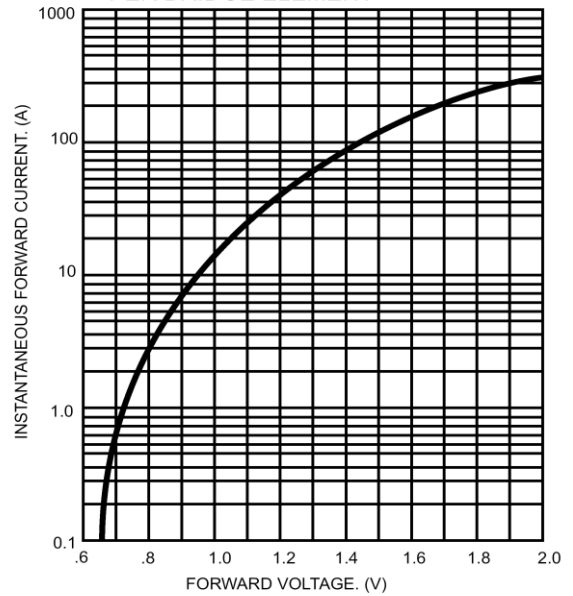
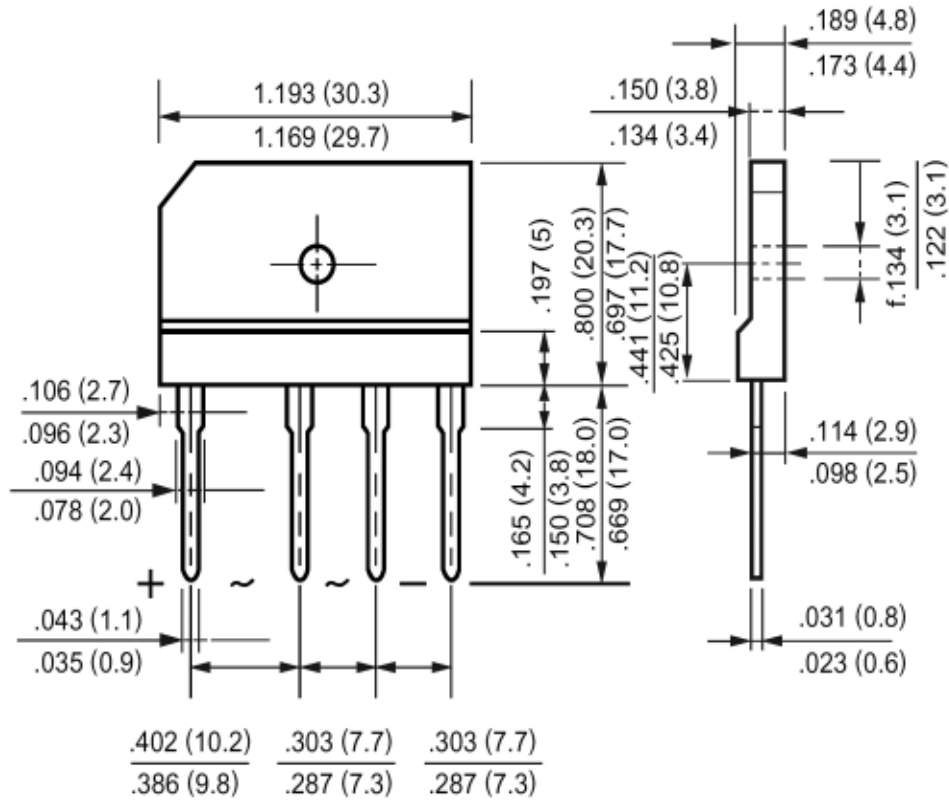


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT



Package Outline

GBJ



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
GBJ	BOX	200	EIA-481-1