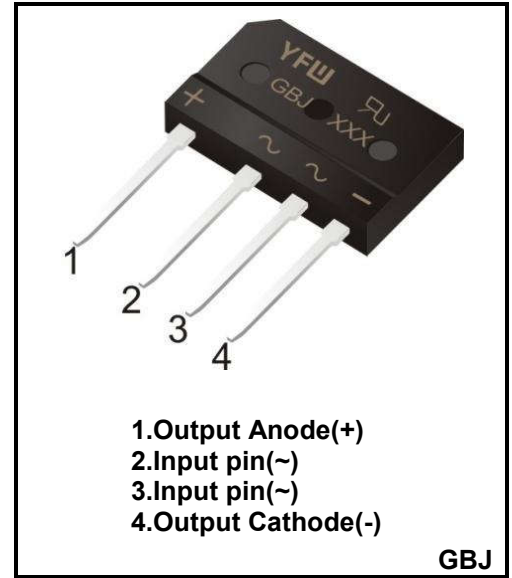


**40A Super Fast Recovery Rectifier Bridge**

**Reverse Voltage - 300 to 600 V**  
**Forward Current -40A**

**FEATURES**

- ◆Class passivated chip
- ◆Low Reverse Leakage Current
- ◆High surge current capability
- ◆Case to Terminal Isolation Voltage 2500V



**MECHANICAL DATA**

- ◆Case: GBJ
- ◆Terminals: Solderable per MIL-STD-202, Method208
- ◆Approx. Weight: 6.5g

**Maximum Ratings and Electrical characteristics**  
**Ratings at 25 °C ambient temperature unless otherwise specified.**

Parameter	Symbols	GBJ4003SF	GBJ4006SF	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	300	600	V
Maximum RMS voltage	$V_{RMS}$	200	420	V
Maximum DC Blocking Voltage	$V_{DC}$	300	600	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	40		A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method) @Ta=85°C	$I_{FSM}$	450		A
Forward Voltage per element @If =40A DC	$V_F$	1.20	1.50	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @Ta=25°C	$I_R$	10		$\mu A$
@Ta=125°C		500		
I2t Rating for Fusing(3ms≤t≤8.3ms)	$I^2t$	664		A <sup>2</sup> S
Typical Junction Capacitance ( Note1 )	$C_j$	130		pF
Maximum Reverse Recovery Time (Note2)	$T_{rr}$	38	45	nS
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	1.0		°C/W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +175		°C

Note:  
 (1) Junction to case with heatsink  
 (2) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with M3 screw

**Ratings and Characteristic Curves**

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

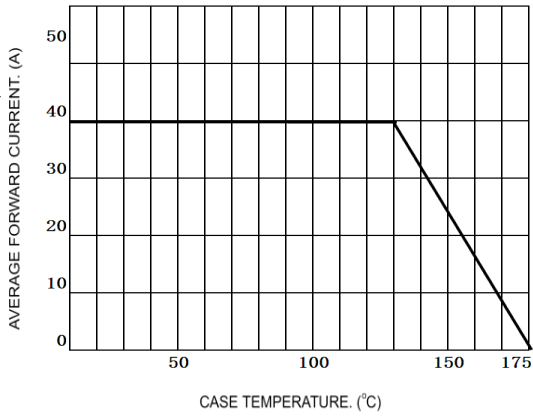


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

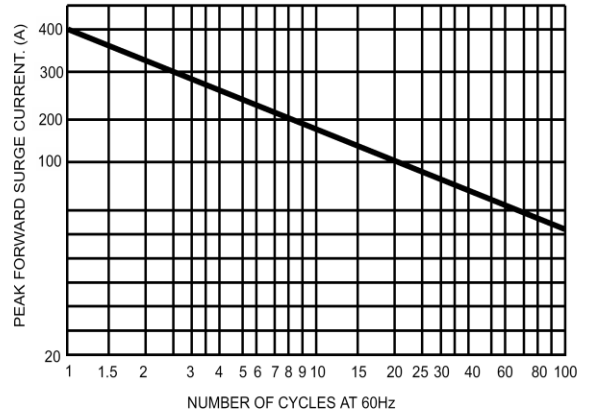


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

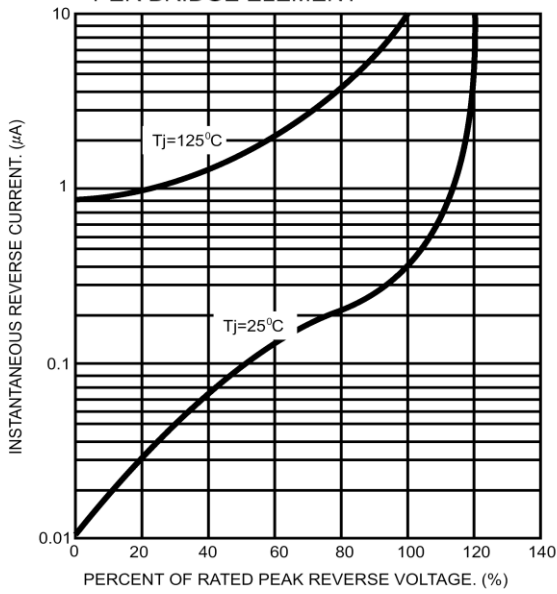
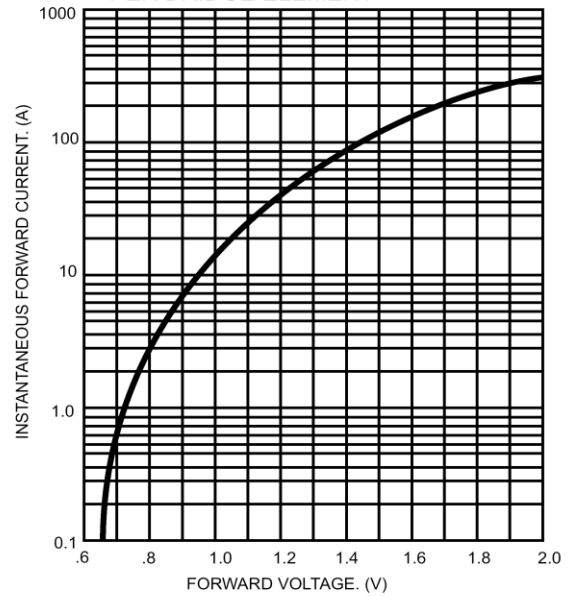
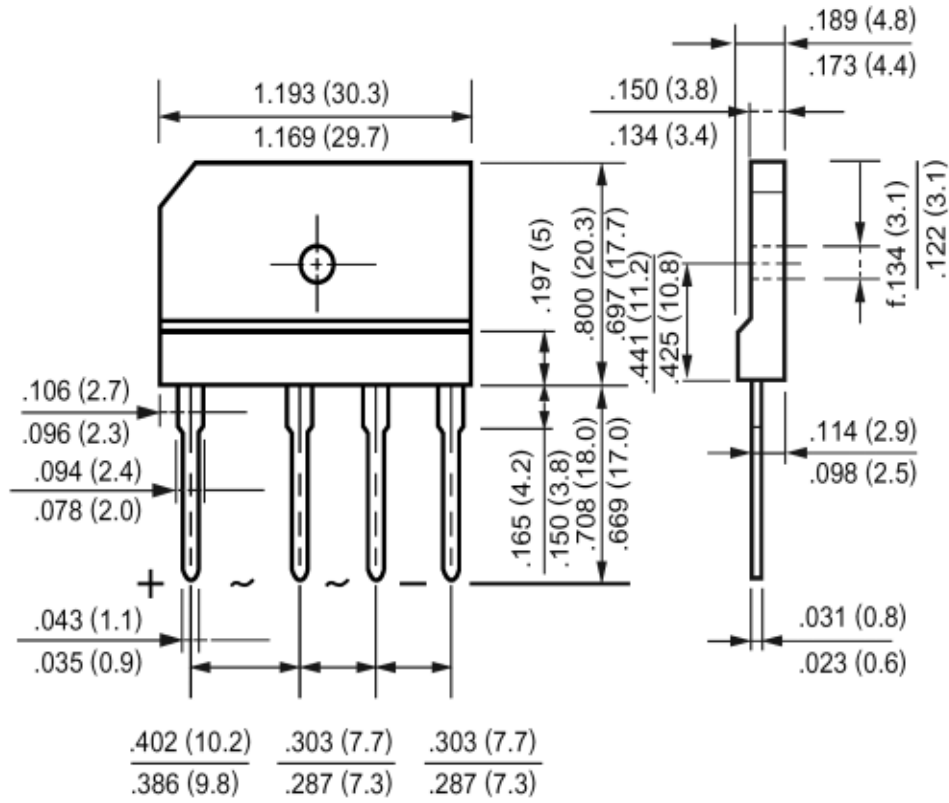


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT



Package Outline

GBJ



Summary of Packing Options

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