

40A Super Fast Recovery Rectifier Bridge

Reverse Voltage - 300 to 600 V

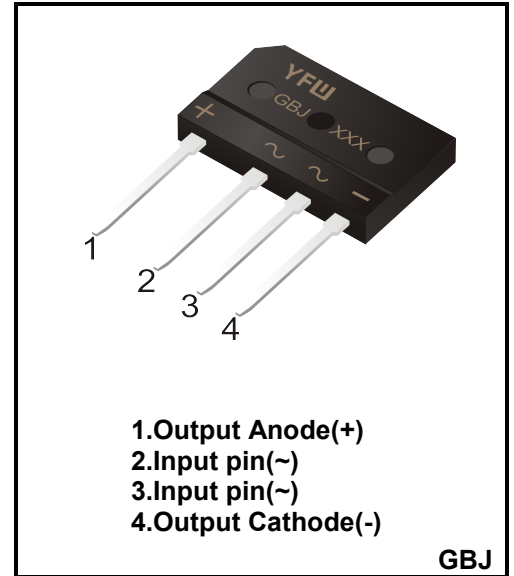
Forward Current –40A

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 @Ta=125°C	I_R	10 500		μA
I2t Rating for Fusing(3ms≤t≤8.3ms)	I^2t	664		A ² S
Typical Junction Capacitance (Note1)	C_j	130		pF
Maximum Reverse Recovery Time (Note2)	T_{rr}	38	45	nS
Typical Thermal Resistance (Note2)	$R_{θJC}$	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

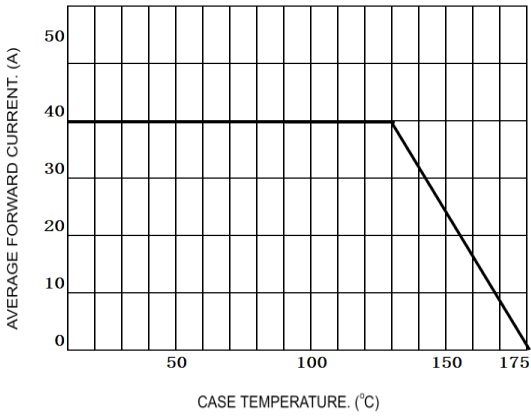


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

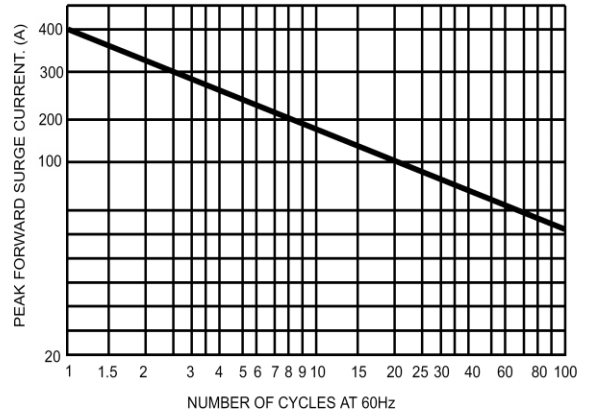


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

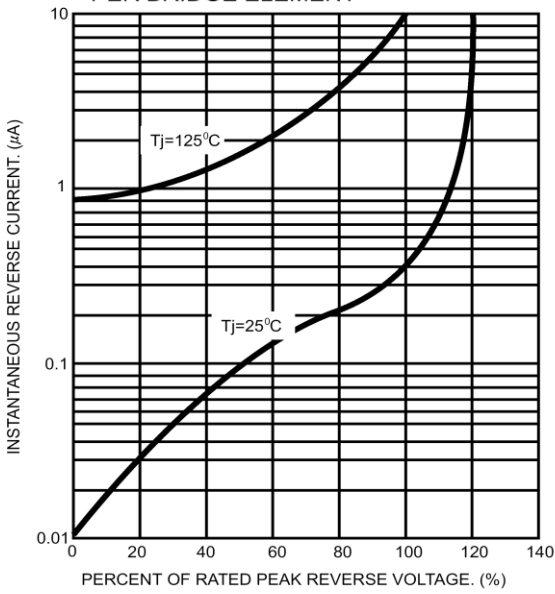
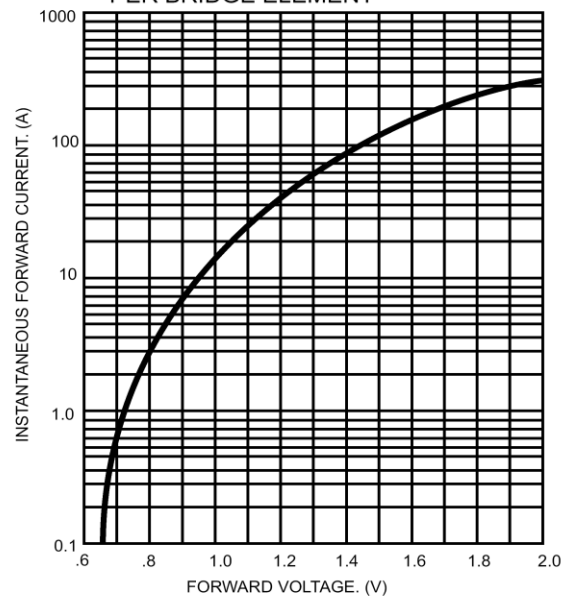
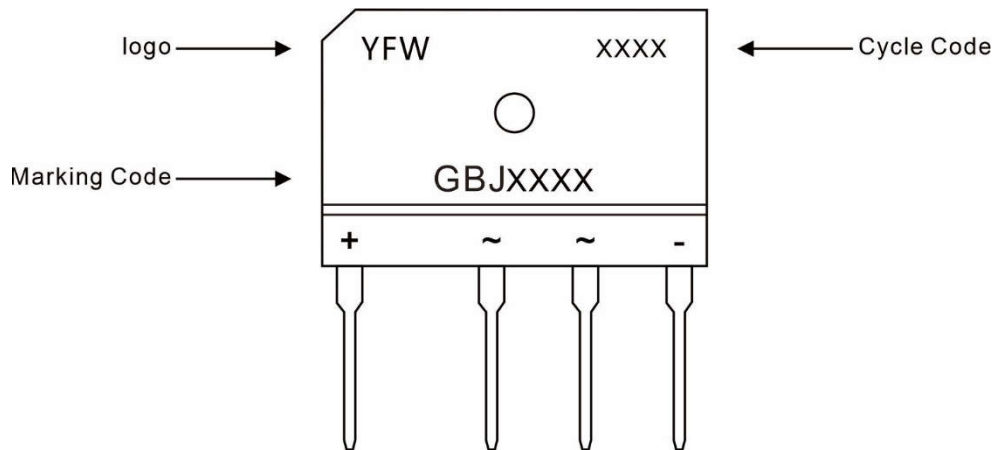


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT



Marking Diagram



Ordering information

Package	Packing Description	Packing Quantity
GBJ	bulk	250PCS/Box 2000PCS/Carton

Package Dimensions

GBJ

Dim.	Millimeter(mm)		Dimensions inInch	
	Min.	Max.	Min.	Max.
A	29.70	30.3	1.17	1.19
B	19.70	20.3	0.78	0.80
C	17.00	18.00	0.67	0.71
D	3.80	4.20	0.15	0.17
E	7.30	7.70	0.29	0.30
G	9.80	10.20	0.39	0.40
H	2.00	2.40	0.08	0.09
I	0.90	1.10	0.04	0.04
J	2.30	2.70	0.09	0.11
K	33.0×45°		1.30×45°	
L	4.40	4.80	0.17	0.19
M	3.40	3.80	0.13	0.15
N	3.10	3.40	0.12	0.13
P	2.50	2.90	0.10	0.11
R	0.60	0.80	0.02	0.03
S	10.80	11.20	0.43	0.44

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