

15A Super Fast Recovery Rectifier Bridge

Reverse Voltage - 300 to 600 V

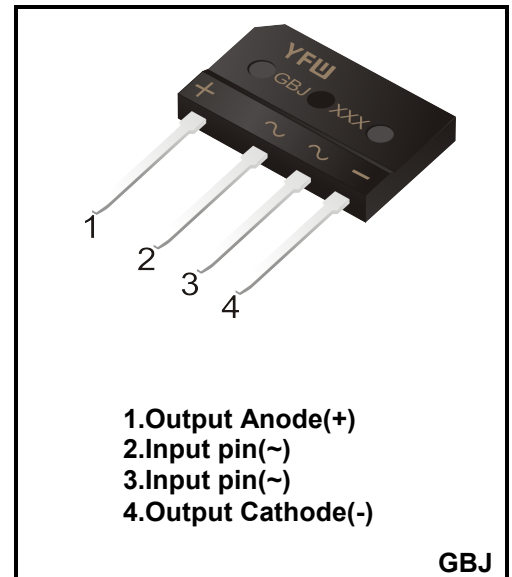
Forward Current –15A

FEATURES

- ◆ Surge overload rating-200 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, Method208
- ◆ 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	GBJ1503SF	GBJ1506SF	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	$I_{(AV)}$	15		A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	250		A
Forward Voltage per element @ $I_F=15A$ DC	V_F	1.20	1.50	V
Maximum DC Reverse Current @ $T_J=25^{\circ}C$ at Rated DC Blocking Voltage @ $T_J=125^{\circ}C$	I_R	10 500		μA
I^2t Rating for Fusing($3ms \leq t \leq 8.3ms$)	I^2t	166		A^2S
Typical Junction Capacitance (Note1)	C_j	66		pF
Maximum Reverse Recovery Time (Note2)	T_{rr}	38	45	nS
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	2.3		$^{\circ}C/W$
Operating and Storage Temperature Range	T_J, T_{stg}	-55 ~ +175		$^{\circ}C$

(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

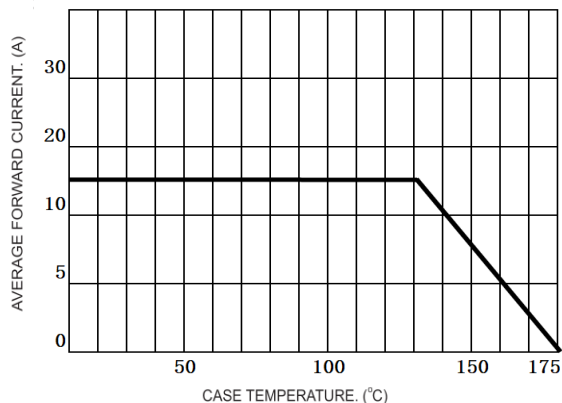


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

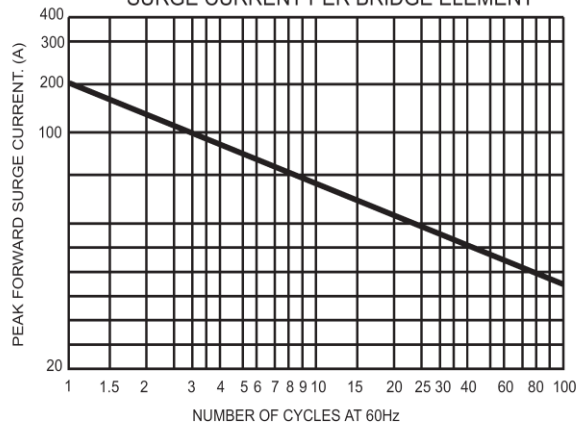


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

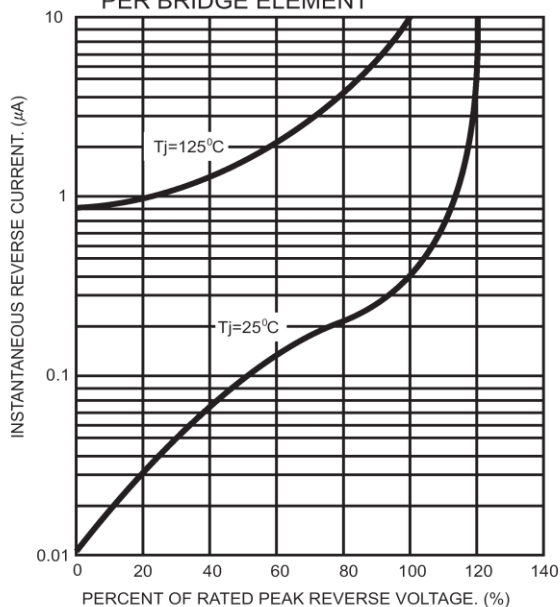


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

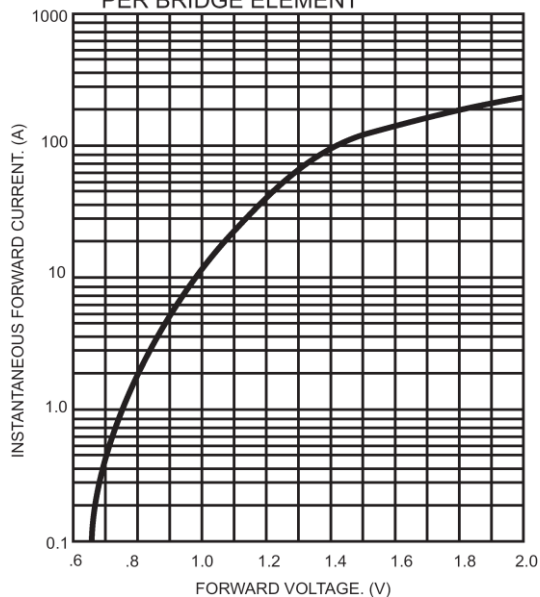
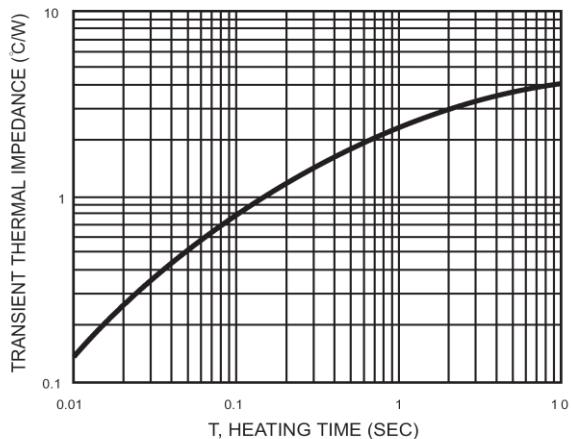
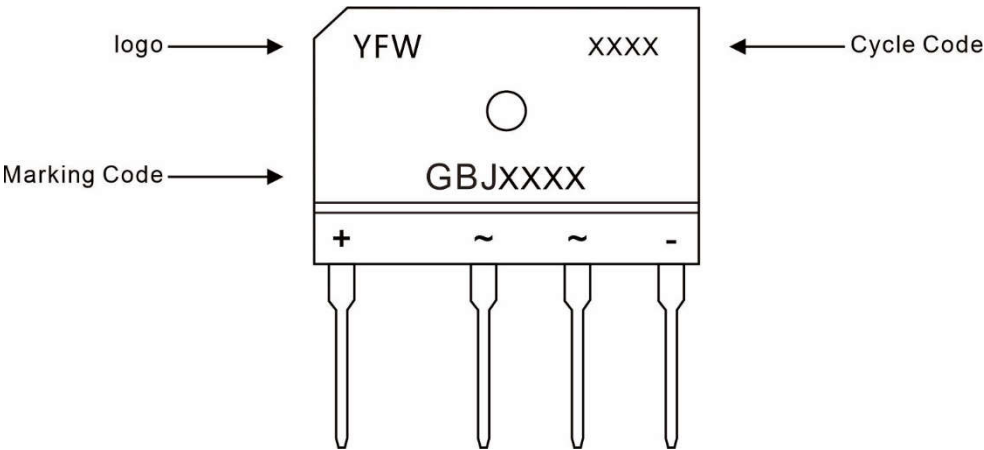


FIG.5- TYPICAL TRANSIENT THERMAL IMPEDANCE



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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