

6.0A Super Fast Recovery Rectifier Bridge

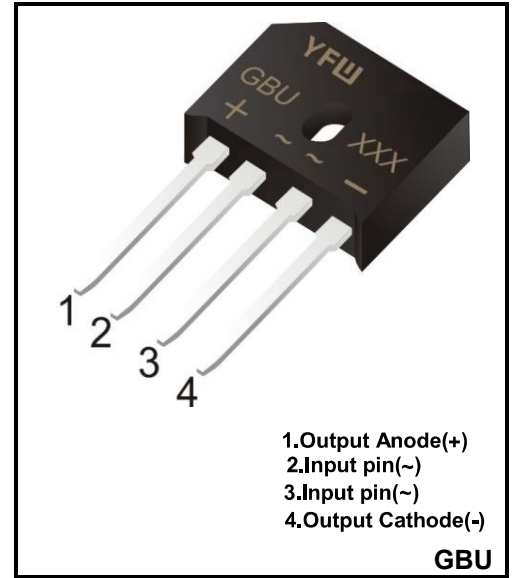
Reverse Voltage - 300 to 600 V
Forward Current – 6.0A

FEATURES

- ◆Surge overload rating-175 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: GBU
- ◆Terminals: Solderable per MIL-STD-202, Method208
- ◆Approx. Weight: 3.9g /0.138oz



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	GBU603SF	GBU606SF	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 $T_C=100^{\circ}C$ Rectified Current at	$I_{(AV)}$	6.0		A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	180		A
Forward Voltage per element @ $I_F=6A$ DC	V_F	1.45	1.65	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_a=25^{\circ}C$ @ $T_a=125^{\circ}C$	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	72		pF
Maximum Reverse Recovery Time (Note2)	T_{rr}	35		nS
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	1.6		$^{\circ}C/W$
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 150mm*150mm*16mm cu plate heatsink

Ratings and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

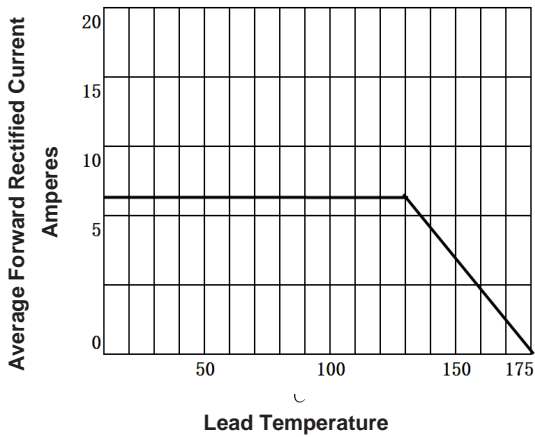


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

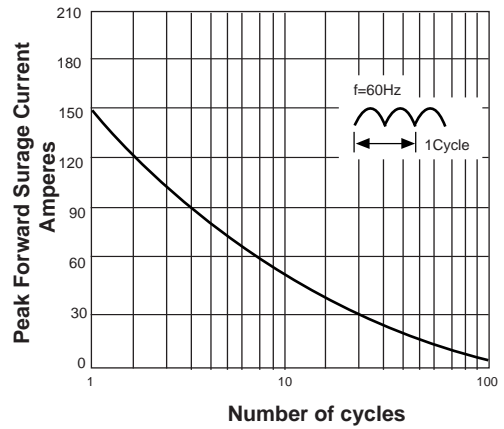


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

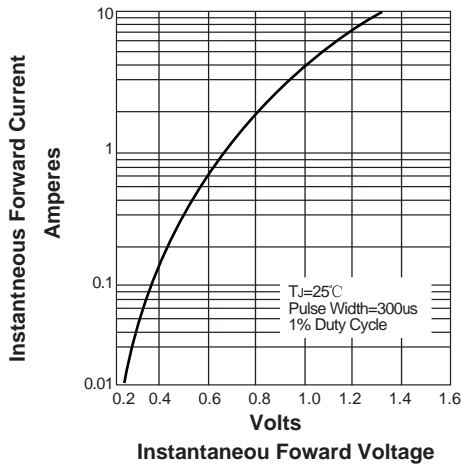
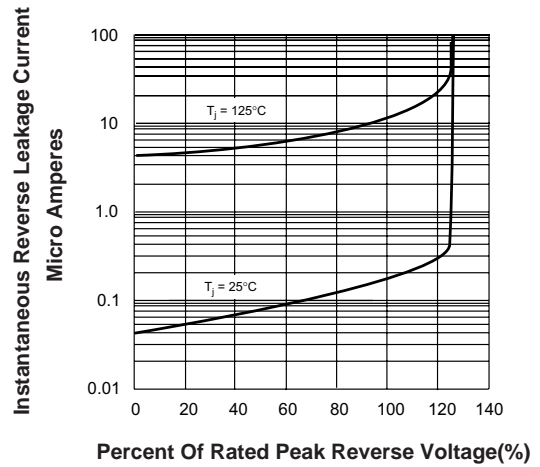
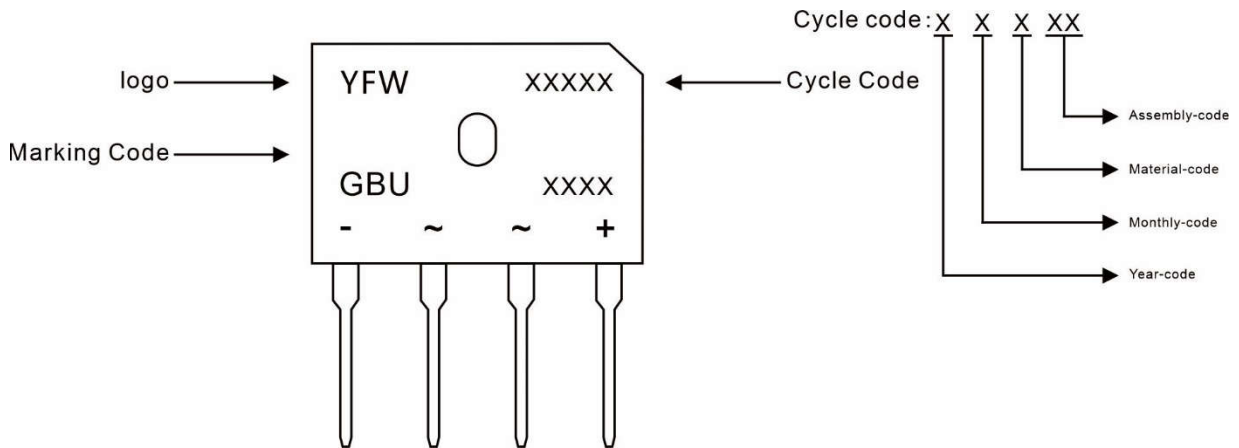


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

Package	Packing Description	Packing Quantity
GBU	bulk	500PCS/Box 5000PCS/Carton

Package Dimensions

GBU

Dim	Millimeter(mm)		Dimensions inInch	
	Min.	Max.	Min.	Max.
A	21.70	22.30	0.86	0.88
B	18.20	18.80	0.72	0.74
C	1.60	2.00	0.06	0.08
D	1.60	2.00	0.06	0.08
E	1.80	2.20	0.07	0.09
F	2.00	2.40	0.08	0.09
G	0.90	1.30	0.04	0.05
H	3.00	/	0.12	/
I	4.88	5.28	0.19	0.21
J	3.20	3.60	0.13	0.14
K	1.70	2.10	0.07	0.08
L	17.50	18.50	0.69	0.73
M	0.40	0.60	0.02	0.02

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