

SUPER FAST BRIDGE RECTIFIER

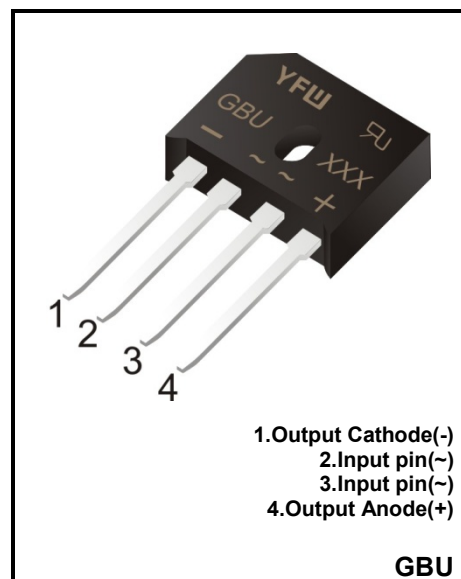
FEATURES

- ◆Surge overload rating-175 amperes peak
- ◆Polarity:As marked on body
- ◆Ideal for printed circuit board
- ◆Plastic material has U/LThe flammability classification 94V-0



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	GBU54SF	GBU56SF	GBU58SF	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward $T_C=100^{\circ}C$ (ote1) Rectified Current at	$I_{(AV)}$	5.0			A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	175			A
Forward Voltage per element @ $I_F=5A$ DC	V_F	0.95	1.25	1.65	V
Maximum DC Reverse Current @ $T_a=25^{\circ}C$ at Rated DC Blocking Voltage @ $T_a=125^{\circ}C$	I_R	5 500			μA
I^2t Rating for Fusing($3ms \leq t \leq 8.3ms$)	I^2t	166			A^2S
Typical Junction Capacitance (ote1)	C_j	72			pF
Maximum Reverse Recovery Time (ote2)	T_{rr}	50			nS
Typical Thermal Resistance (ote2)	$R_{\theta JC}$	1.6			$^{\circ}C/W$
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 150mm*150mm*16mm cu plate heatsink

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

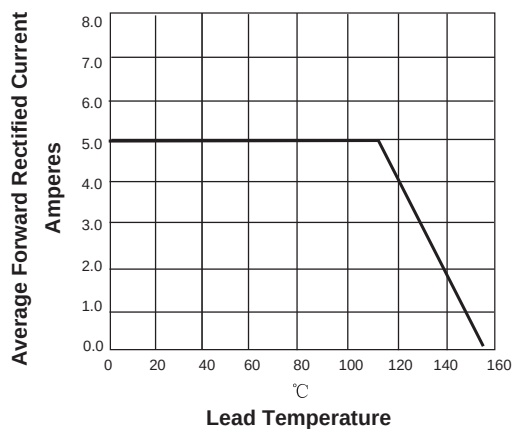


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

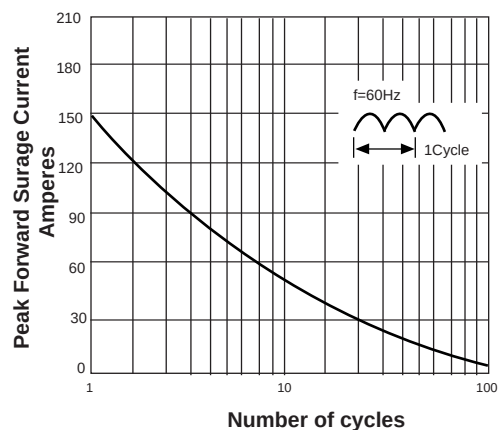


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

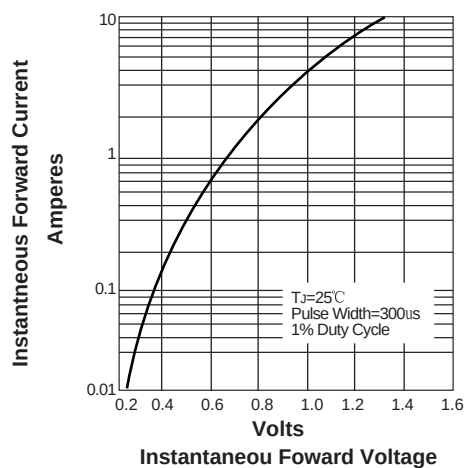
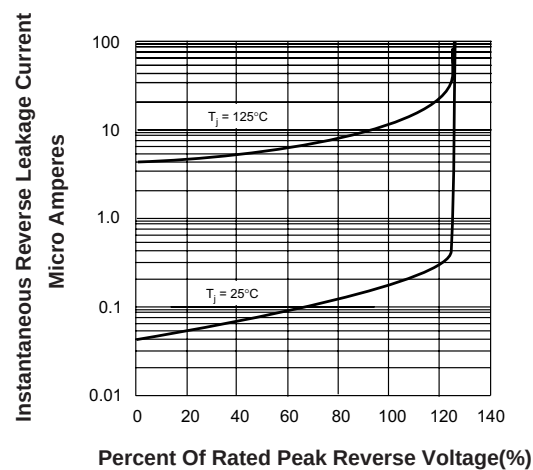
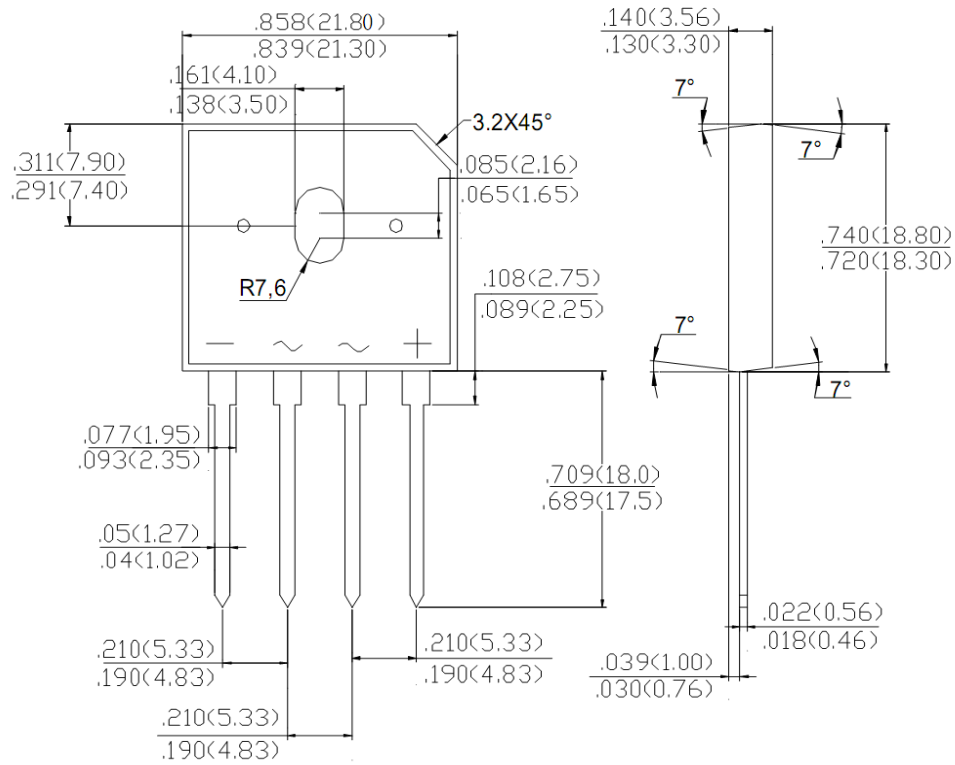


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Outline

GBU



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
GBU	BOX	350	EIA-481-1