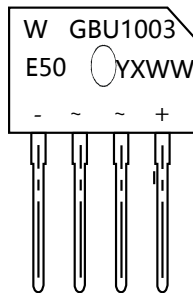


Special For DC-AC Rectifier Bridge



PINNING

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)

Features

- Compliant with RoHS Provisions
- Low forward voltage, high forward current
- High forward surge current capability
- High heat-conducting performance
- Thermal welding performance:
260 °C/10sec

Applications

- Switching Power Supply
- Home Appliances, Office Devices
- Industrial Auto-equipments

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbol	GBU1003E50	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	300	V
Maximum RMS voltage	V_{RMS}	210	V
Maximum DC Blocking Voltage	V_{DC}	300	V
Average Rectified Output Current	I_o	10.0	A
Reverse Recovery Time. $I_F=0.5A, I_R=1A, I_{RR}=0.25A$	T_{rr}	50	ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load(JEDEC Method)	I_{FSM}	200	A
$I^2 t$ rating for fusing (1ms < t < 8.3ms)	$I^2 t$	166	A ² S
Dielectric Strength: Terminals to Case, AC 1 minute	V_{dis}	2.5	KV
Mounting torque	TOR	Recommended torque:0.5	N.m
Maximum Forward Voltage at 5.0 A	V_F	0.97	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10 500	μA
Junction to ambient , without heatsink @ $T_A=25\text{ }^\circ C$ Junction to case, with heatsink @ $T_A=125\text{ }^\circ C$	$R_{\theta JA}$ $R_{\theta JC}$	22 3	$^\circ C/W$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^\circ C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

Fig.1: Current Derating Curve

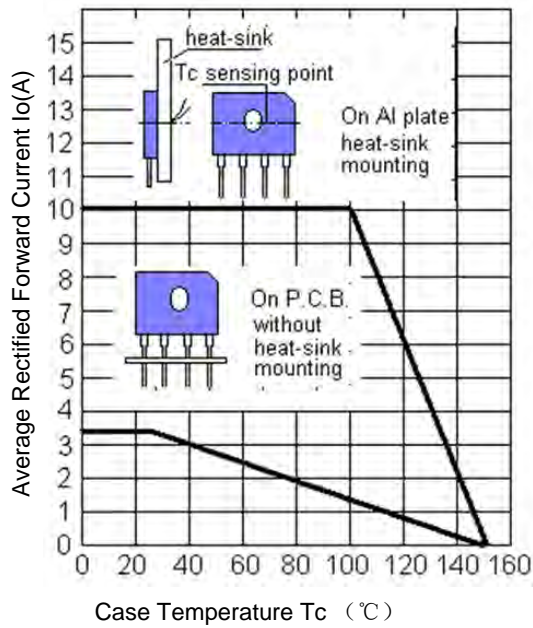


Fig.3: Max. Surge Current

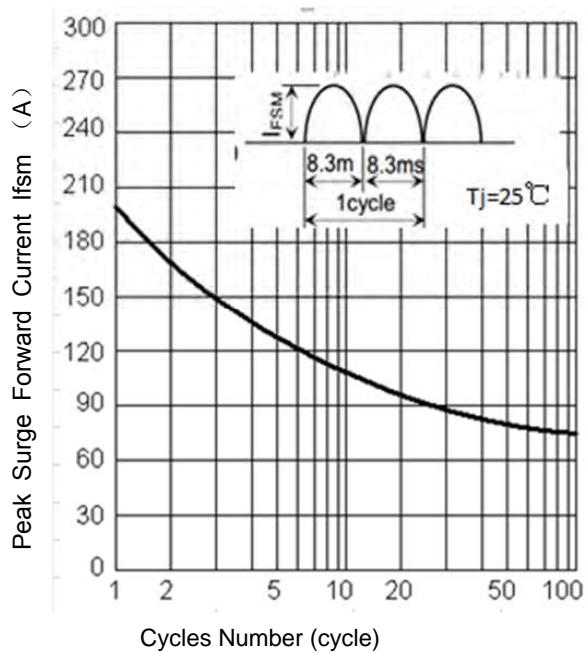


Fig.2 Typical Reverse Characteristics

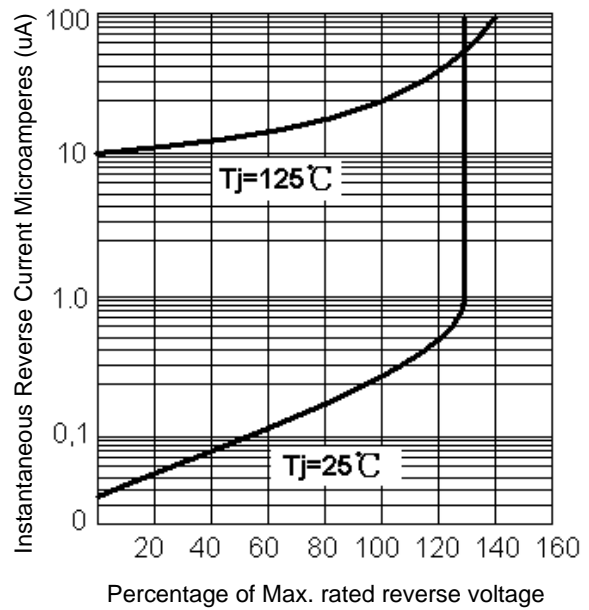
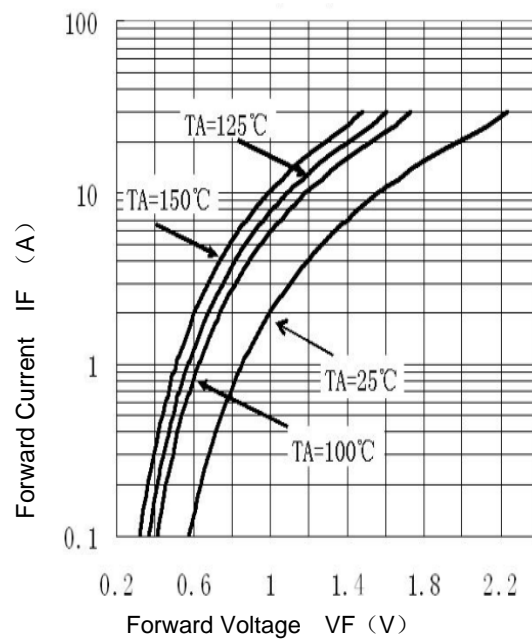
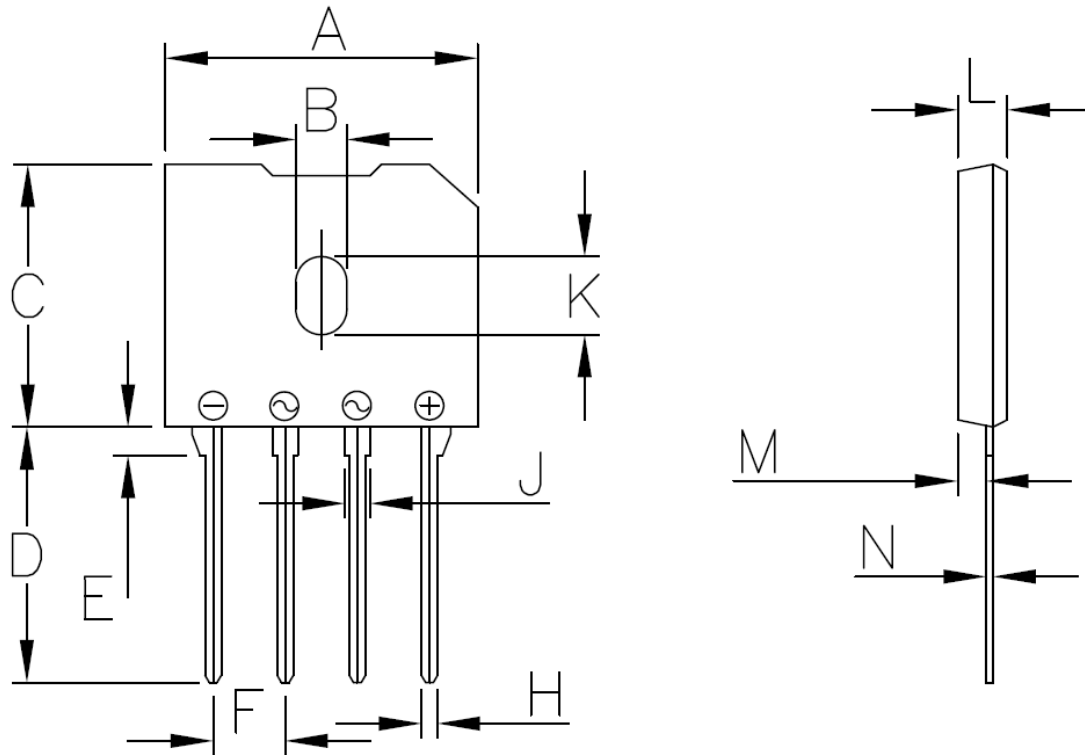


Fig.4: Rated Forward Features



PACKAGE OUTLINE DIMENSIONS

Note:unit mm(inch)



GBU mechanical data: unit mm(inch)

Unit		A	B	C	D	E	F	H	J	K	L	M	N
mm	max	22.3	4.1	18.8	18.5	2.1	5.43	1.15	2.24	5.6	3.6	2.3	0.6
	min	21.7	3.5	18.2	17.5	1.5	4.73	0.85	1.64	5.1	3.2	1.8	0.4
inch	max	0.88	0.17	0.74	0.73	0.09	0.22	0.045	0.09	0.22	0.15	0.09	0.03
	min	0.85	0.13	0.71	0.68	0.06	0.18	0.033	0.06	0.20	0.12	0.07	0.015