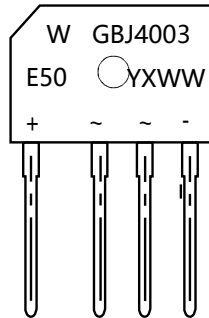


Special For DC-AC Rectifier Bridge



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	GBJ4003E50	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	40.0	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}	450	A
$I^2 t$ rating for fusing ($1ms < t < 8.3ms$)	$I^2 t$	830	$A^2 S$
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 20.0A	V_F	1.6	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

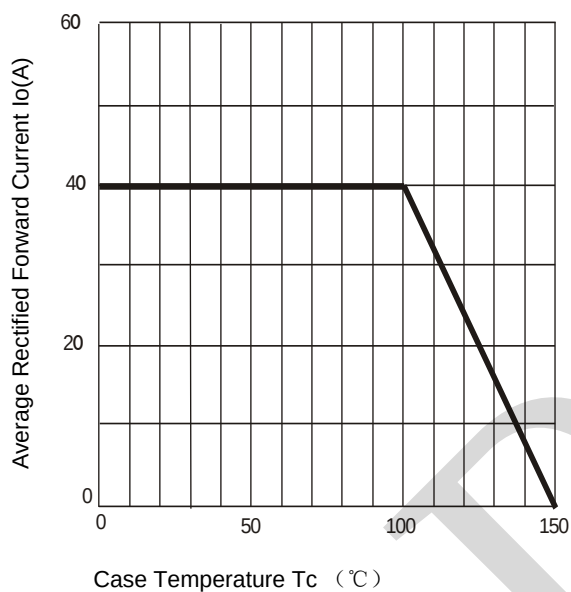


Fig.2 Typical Reverse Characteristics

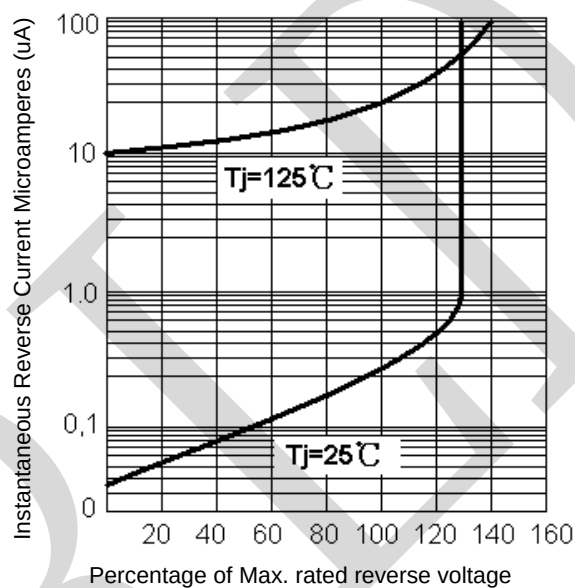


Fig.3: Max. Surge Current

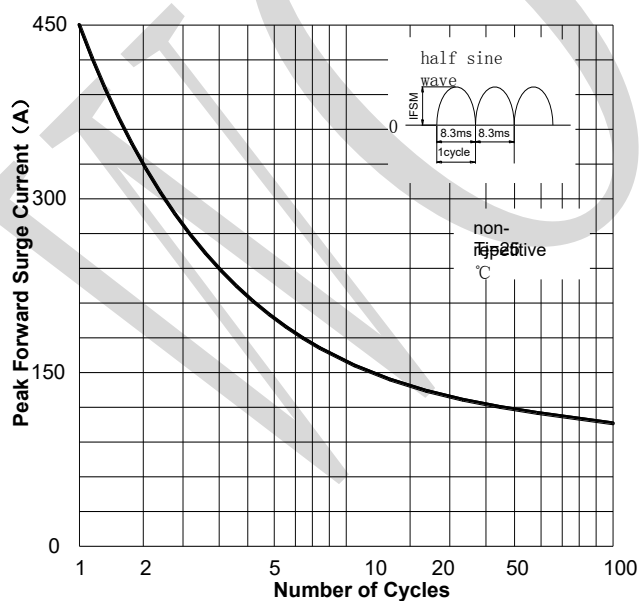
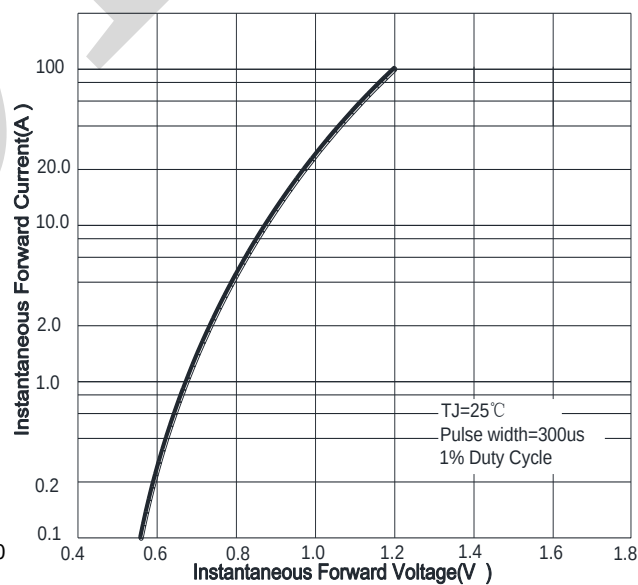
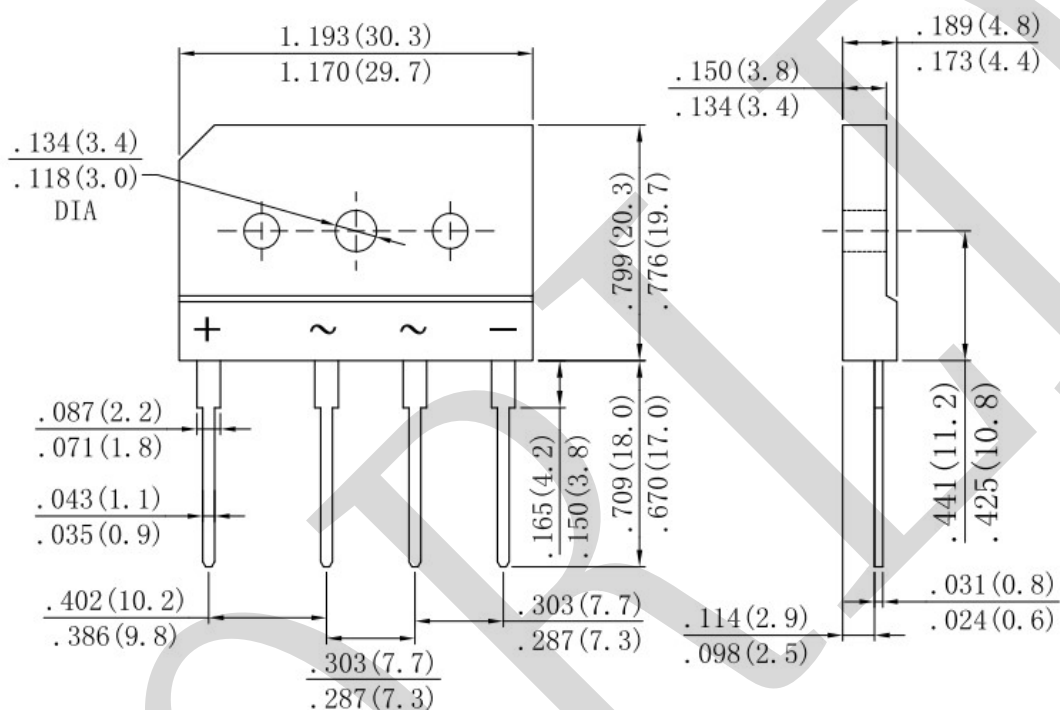


Fig.4: Rated Forward Features



PACKAGE OUTLINE DIMENSIONS

Note:unit In(mm)



Dimensions in inches and(millimeters)