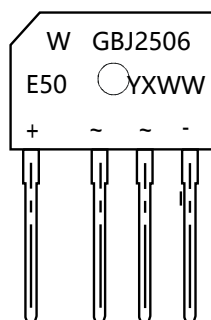


## Special For DC-AC Rectifier Bridge



### PINNING

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

### Features

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

### Applications

- Ç Switching Power Supply
- Ç Home Appliances, Office Devices
- Ç 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                             | GBJ2506E50             | Unit         |
|------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------------|--------------|
| Maximum repetitive peak reverse voltage                                                                          | $V_{RRM}$                          | 600                    | V            |
| Maximum RMS voltage                                                                                              | $V_{RMS}$                          | 420                    | V            |
| Maximum DC Blocking Voltage                                                                                      | $V_{DC}$                           | 600                    | V            |
| Average Rectified Output Current                                                                                 | $I_o$                              | 25.0                   | A            |
| Reverse Recovery Time. $I_F=0.5A, I_R=1A, I_{RR}=0.25A$                                                          | $T_{rr}$                           | 75                     | ns           |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)                | $I_{FSM}$                          | 300                    | A            |
| $I^2 t$ rating for fusing ( $1ms < t < 8.3ms$ )                                                                  | $I^2 t$                            | 373                    | $A^2 S$      |
| 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 12.5A                                                                                 | $V_F$                              | 1.75                   | V            |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                                                          | $I_R$                              | 10<br>500              | $\mu A$      |
| Junction to ambient , without heatsink @ $T_A=25^\circ C$<br>Junction to case, with heatsink @ $T_A=125^\circ C$ | $R_{\theta JA}$<br>$R_{\theta JC}$ | 22<br>2.3              | $^\circ C/W$ |
| 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

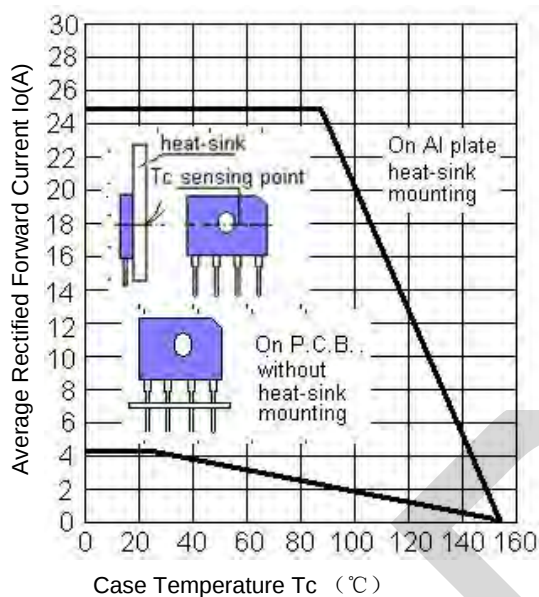


Fig.2 Typical Reverse Characteristics

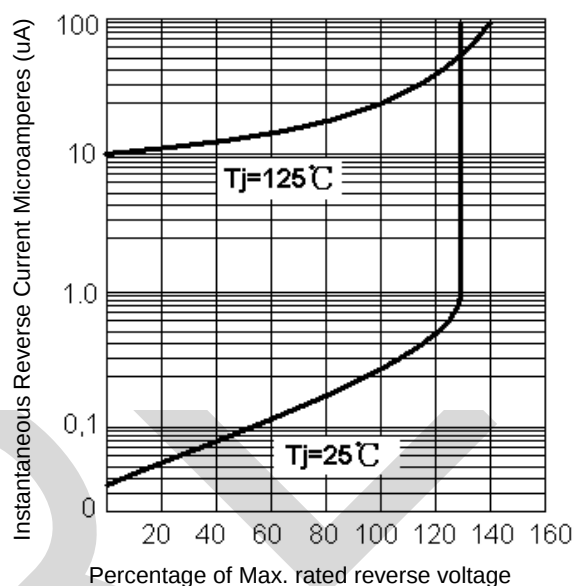


Fig.3: Max. Surge Current

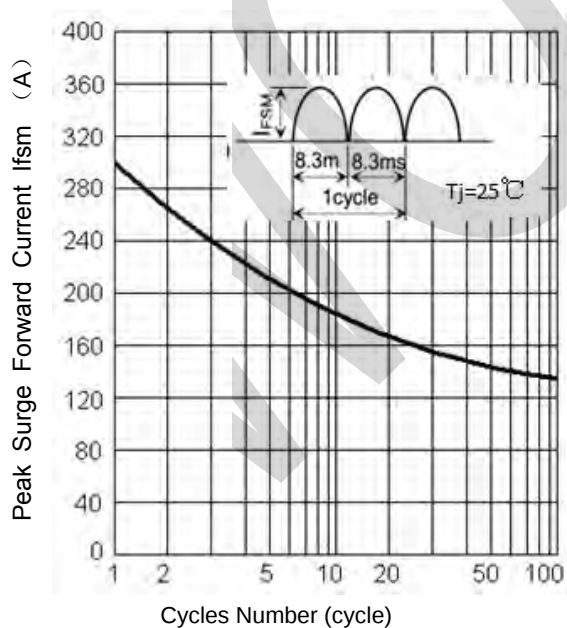
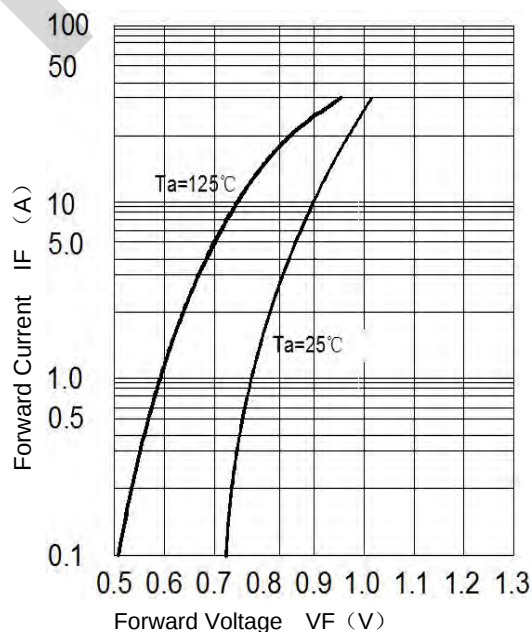
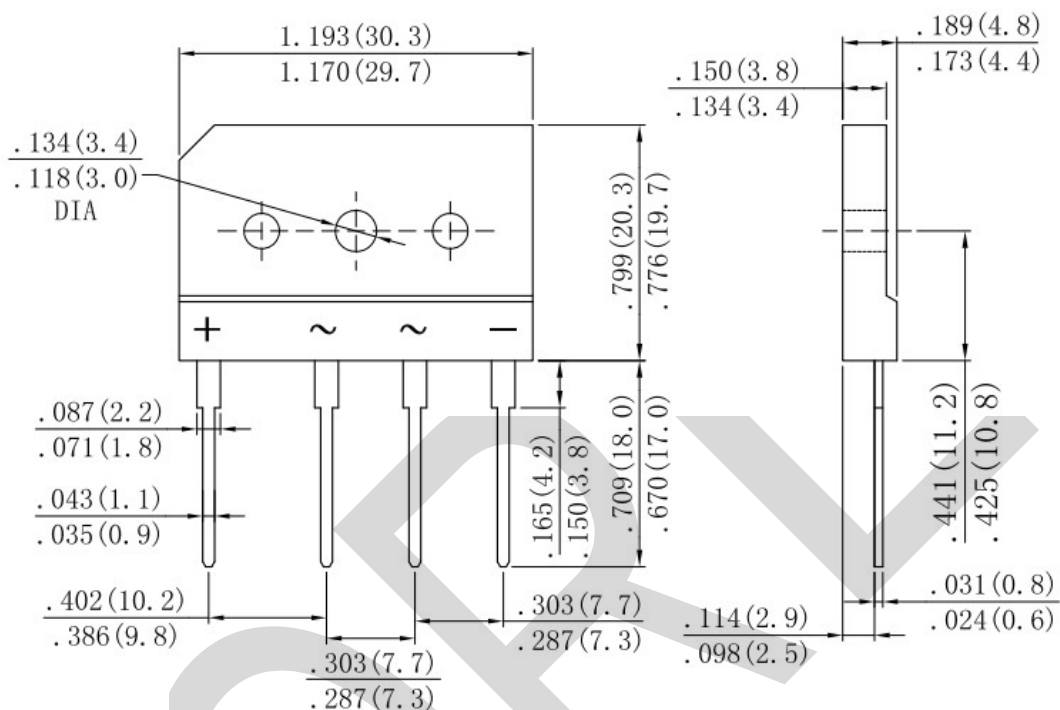


Fig.4: Rated Forward Features



## PACKAGE OUTLINE DIMENSIONS

Note:unit In(mm)



Dimensions in inches and(millimeters)