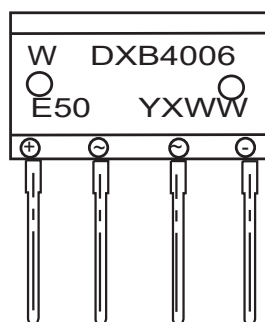


## Special For DC-AC Rectifier Bridge



### PINNING

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

### Features

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

### Applications

- Å Switching Power Supply
- Å Home Appliances, Office Devices
- Å 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          | DXB4006E50             | 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                                                                  | $I_o$           | 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                                                                  | $V_F$           | 1.85                   | V             |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                                           | $I_R$           | 10<br>500              | $\mu A$       |
| Junction to ambient , without heatsink @ $T_A=25\text{ }^{\circ}C$                                | $R_{\theta JA}$ | 22                     | $^{\circ}C/W$ |
| Junction to case, with heatsink @ $T_A=125\text{ }^{\circ}C$                                      | $R_{\theta JC}$ | 3                      |               |
| Operating and Storage Temperature Range                                                           | $T_j, T_{stg}$  | -50 ~ +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

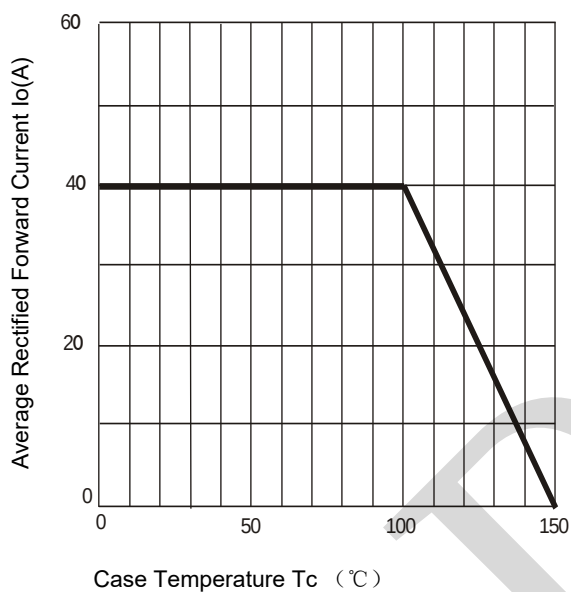


Fig.2 Typical Reverse Characteristics

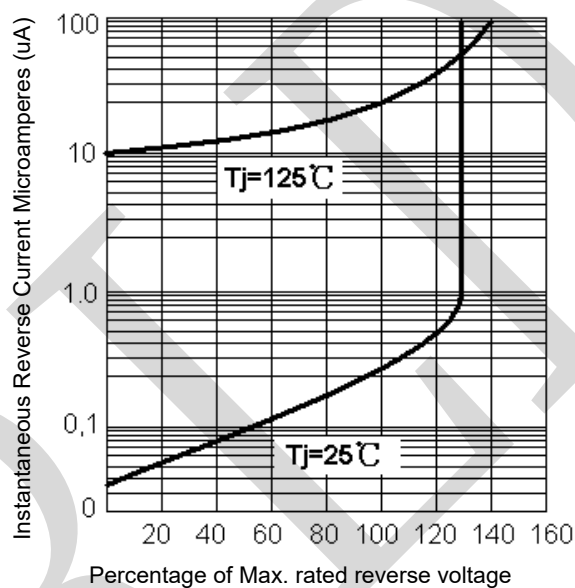


Fig.3: Max. Surge Current

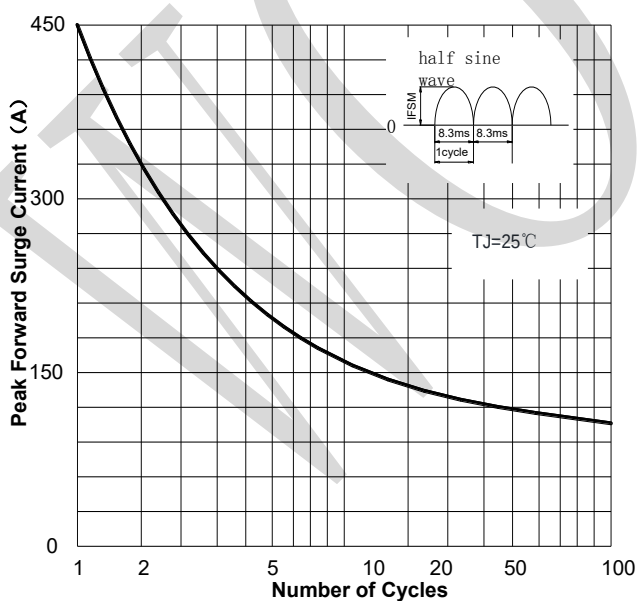
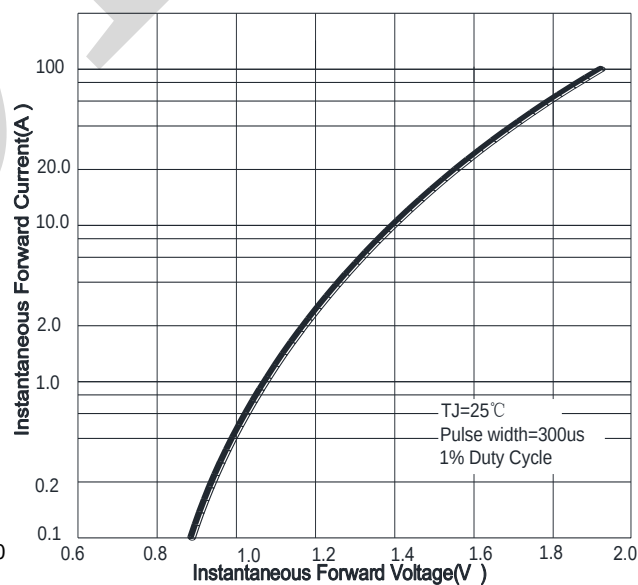
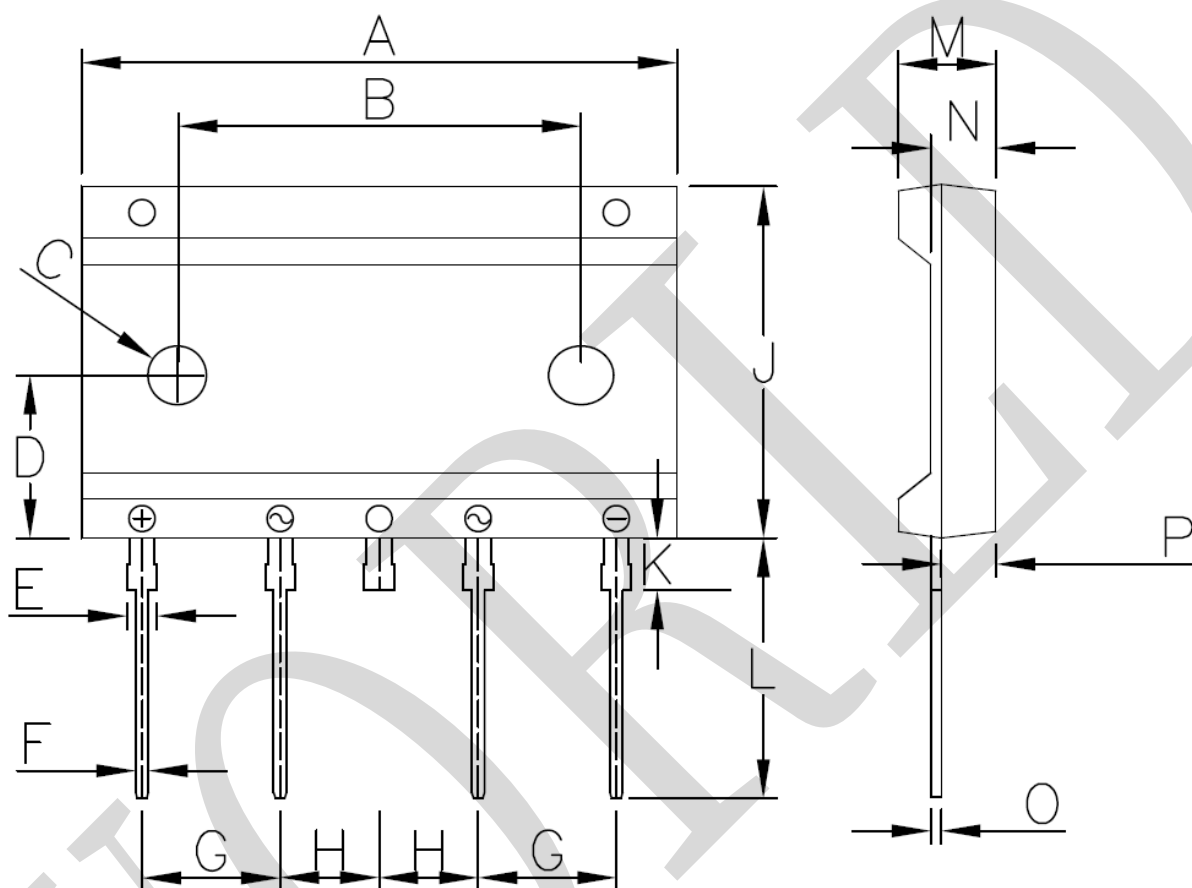


Fig.4: Rated Forward Features



## PACKAGE OUTLINE DIMENSIONS

Note: unit mm(inch)



DXB mechanical data: unit mm(inch)

|     | A    | B    | C    | D    | E   | F    | G    | H    | J    | K    | L    | M    | N    | O    | P    |
|-----|------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|
| max | 46.1 | 31.1 | 4.8  | 12.8 | 2.5 | 1.3  | 10.9 | 8.0  | 27.5 | 4.2  | 20.5 | 8.4  | 5.9  | 1.0  | 4.8  |
| min | 45.3 | 30.9 | 4.4  | 12.2 | 2.1 | 0.7  | 10.3 | 7.2  | 26.5 | 3.8  | 19.5 | 7.6  | 5.1  | 0.6  | 4.2  |
| max | 1.81 | 1.22 | 0.19 | 0.51 | 1.3 | 0.10 | 0.43 | 0.32 | 1.09 | 0.17 | 0.81 | 0.33 | 0.24 | 0.04 | 0.19 |
| min | 1.78 | 1.21 | 0.17 | 0.48 | 1.0 | 0.02 | 0.40 | 0.28 | 1.04 | 0.15 | 0.76 | 0.29 | 0.20 | 0.5  | 0.16 |