



## Silicon Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts

Forward Current - 25 Amperes

### Features

- Low forward voltage drop
- Electrically isolated base -2000 Volts
- High surge forward current capability
- Materials used carries U/L recognition

### Mechanical Data

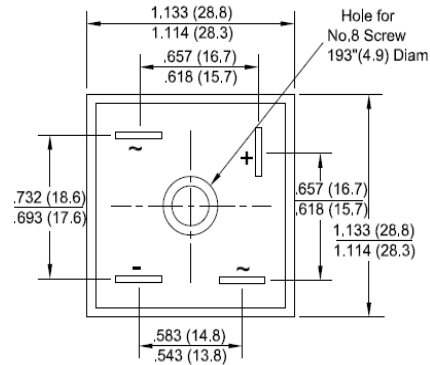
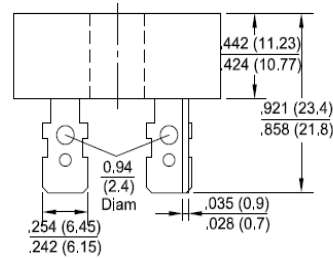
- Polarity: Symbol marked on body
- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

### Applications

- General purpose use in AC/DC bridge full wave rectification, for power supply, industrial automation applications, etc.

### KBPC



Package Outline Dimensions in Inches (Millimeters)



RoHS  
COMPLIANT

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Characteristics                                                                                    | Symbol           | KBPC<br>25005 | KBPC<br>2501 | KBPC<br>2502 | KBPC<br>2504 | KBPC<br>2506 | KBPC<br>2508 | KBPC<br>2510 | Unit             |
|----------------------------------------------------------------------------------------------------|------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
|                                                                                                    |                  |               |              |              |              |              |              |              |                  |
| Maximum Repetitive Peak Reverse Voltage                                                            | $V_{RRM}$        | 50            | 100          | 200          | 400          | 600          | 800          | 1000         | V                |
| Maximum RMS Voltage                                                                                | $V_{RMS}$        | 35            | 70           | 140          | 280          | 420          | 560          | 700          | V                |
| Maximum Average Forward Rectified Current @T <sub>c</sub> =55 °C                                   | $I_{(AV)}$       | 25            |              |              |              |              |              |              | A                |
| Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$        | 400           |              |              |              |              |              |              | A                |
| I <sup>2</sup> t Rating for Fusing (t<8.3mS)                                                       | I <sup>2</sup> t | 664           |              |              |              |              |              |              | A <sup>2</sup> s |
| Peak Forward Voltage per Diode at 12.5A DC                                                         | $V_F$            | 1.1           |              |              |              |              |              |              | V                |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per Diode @T <sub>j</sub> =25°C            | $I_R$            | 10            |              |              |              |              |              |              | μA               |
| Operating Junction Temperature Range                                                               | T <sub>J</sub>   | -55 to +150   |              |              |              |              |              |              | °C               |
| Storage Temperature Range                                                                          | T <sub>STG</sub> | -55 to +150   |              |              |              |              |              |              | °C               |



Fig. 1 - Forward Current Derating Curve

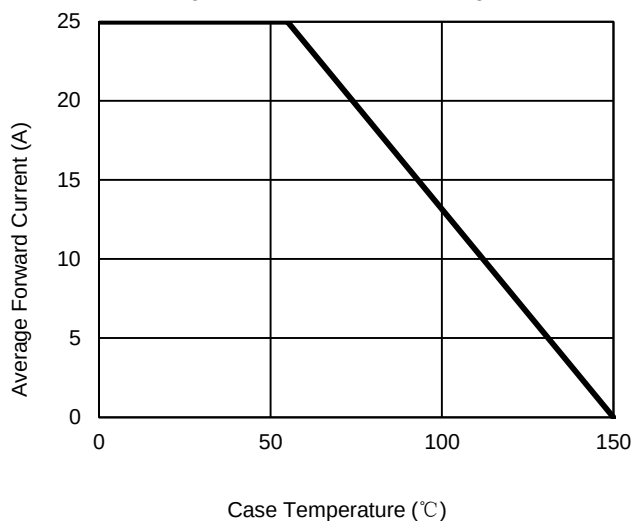


Fig. 2 - Maximum Non-Repetitive Surge Current

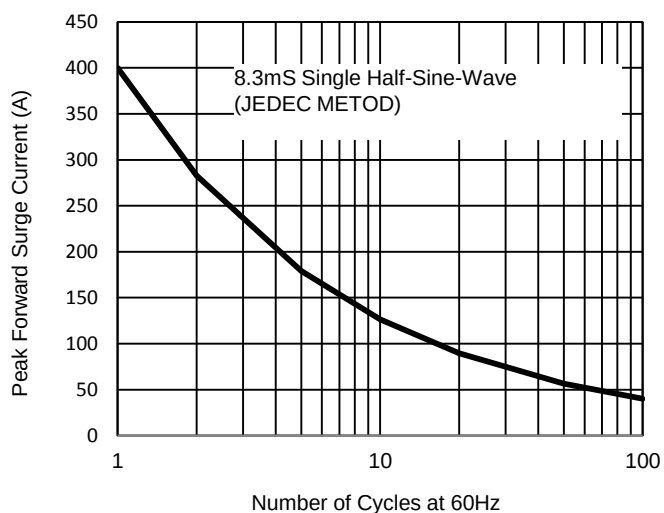


Fig. 3 - Typical Reverse Characteristics

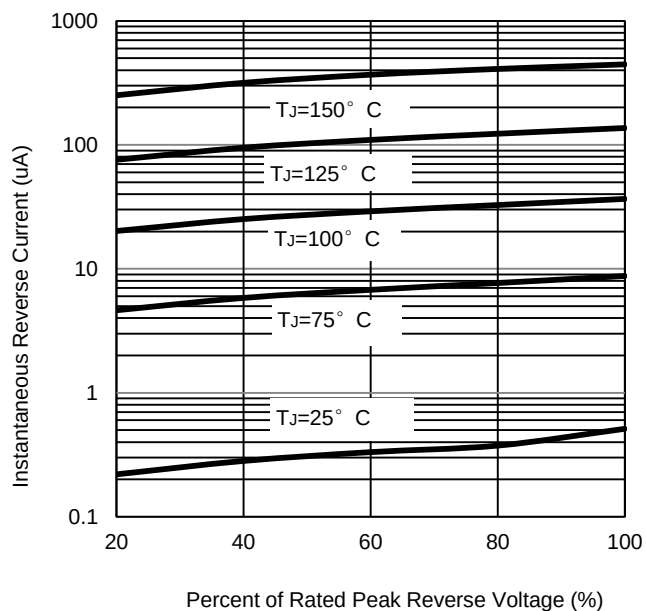
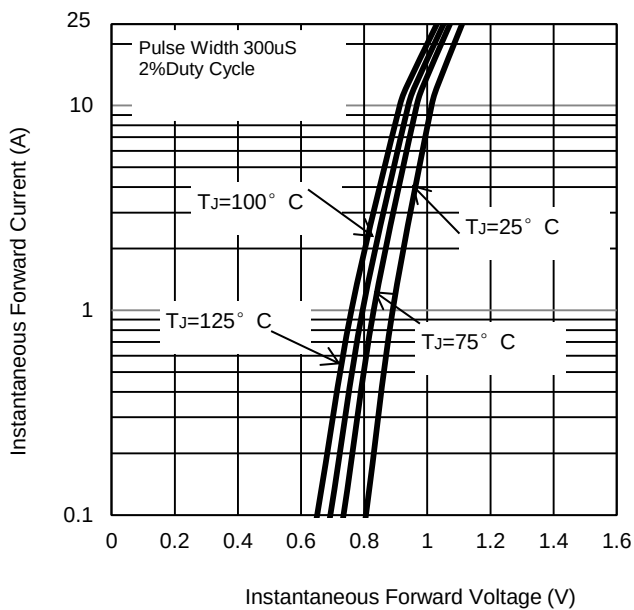


Fig. 4 - Typical Forward Characteristics





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