



Glass Passivated Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts
Forward Current - 3.0 Amperes

Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability
- Meet UL flammability classification 94V-0

Mechanical Data

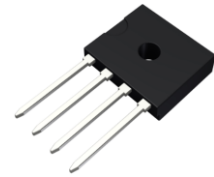
- Polarity: Symbol marked on body
- Mounting position: Any

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

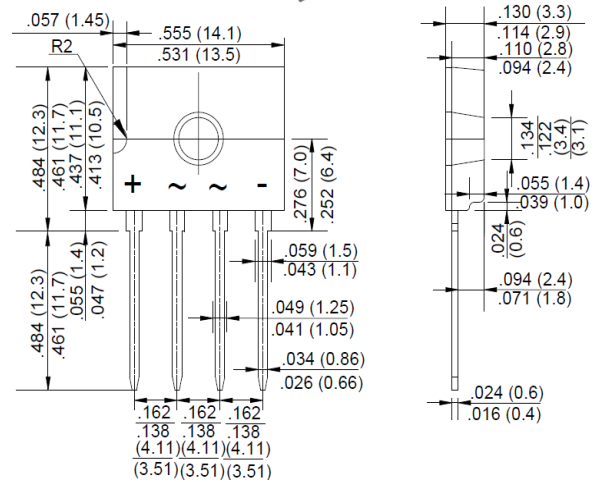
Applications

- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

D3K



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 | D3KB05 | D3KB1 | D3KB2 | D3KB4 | D3KB6 | D3KB8 | D3KB10 | 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 DC Blocking Voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward @ T _c =140°C (with heatsink) | I _(AV) | 3 | | | | | | | A |
| Rectified Current @ T _a =29°C (without heatsink) | | 1.2 | | | | | | | |
| Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method) | I _{FSM} | 90 | | | | | | | A |
| I ² t Rating for Fusing (t<8.3mS) | I ² t | 33.6 | | | | | | | A ² s |
| Peak Forward Voltage per Diode at 1.5A DC | V _F | 1.05 | | | | | | | V |
| Typical Thermal Resistance to Ambient (without heatsink) | R _{θJA} | 37 | | | | | | | °C/W |
| Typical Thermal Resistance to case (with heatsink (Note2)) | R _{θJC} | 1.5 | | | | | | | °C/W |
| Typical Thermal Resistance to lead (without heatsink) | R _{θJL} | 5.5 | | | | | | | °C/W |
| Maximum DC Reverse Current at Rated @ T _J =25°C | I _R | 5 | | | | | | | μA |
| DC Blocking Voltage per Diode @ T _J =125°C | | 500 | | | | | | | |
| Operating Junction Temperature Range | T _J | -55 to +150 | | | | | | | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | | | | | °C |

Notes: 1. The typical data above is for reference only
2. Device mounted on 50mm*50mm*1.6mm Cu plate heatsink.



Fig. 1 - Forward Current Derating Curve

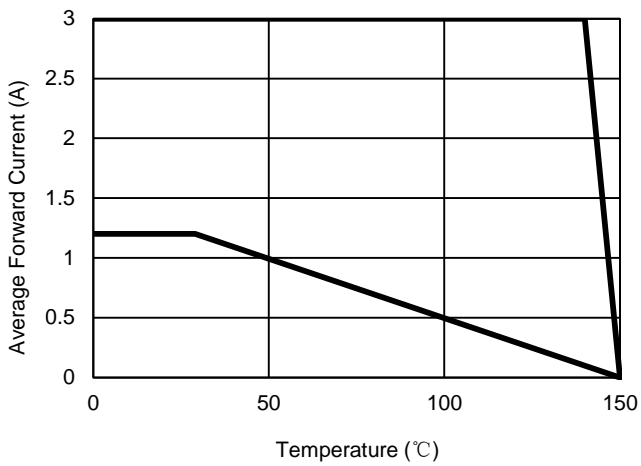


Fig. 2 - Maximum Non-Repetitive Surge Current

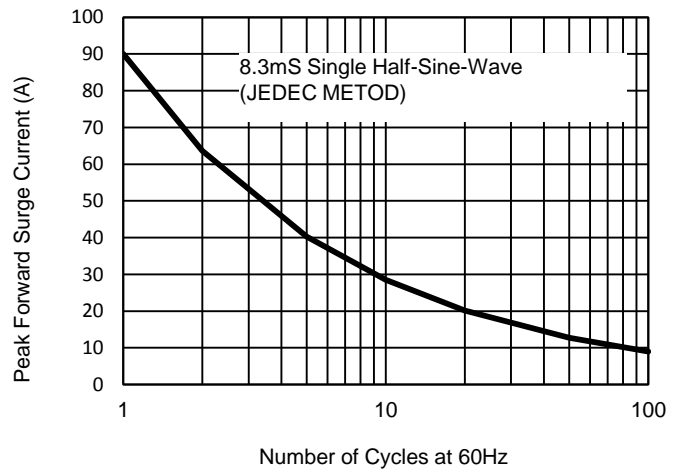


Fig. 3 - Typical Reverse Characteristics

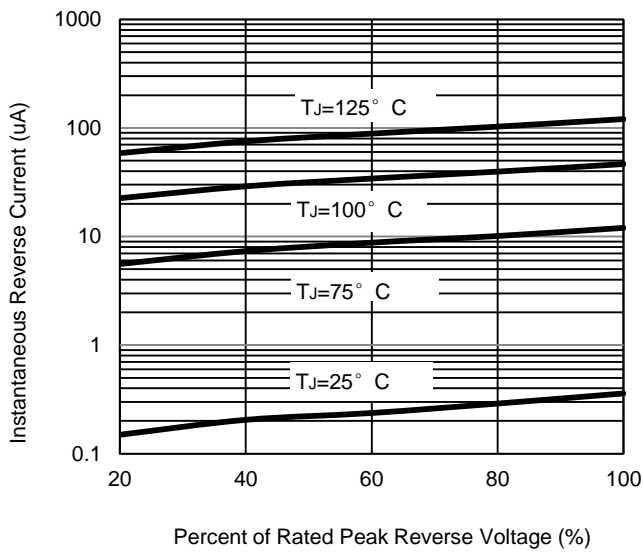
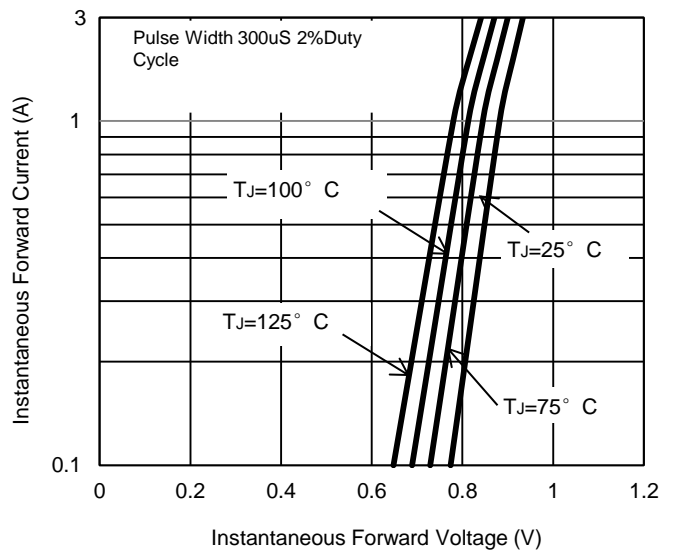


Fig. 4 - Typical Forward Characteristics





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