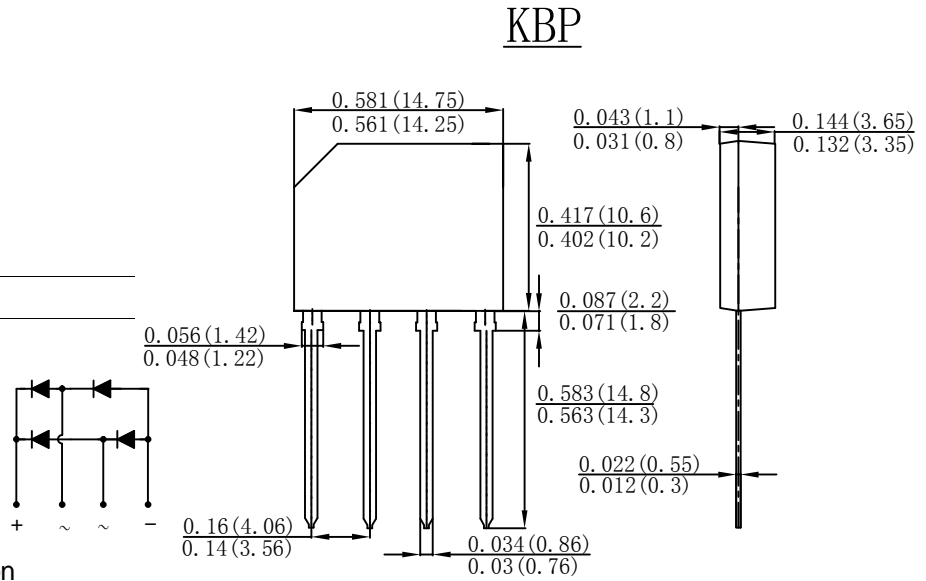


Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: KBP, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version



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%.

| TYPE NUMBER(NOTE 1) | SYMBOL | KBP 4005G(H) | KBP 401G(H) | KBP 402G(H) | KBP 404G(H) | KBP 406G(H) | KBP 408G(H) | KBP 410G(H) | UNITS | |
|---|-----------------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|------------------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} | | | | | | | | V | |
| | V _{RWM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | | |
| | V _{DC} | | | | | | | | | |
| RMS Reverse Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V | |
| Average Rectified Output Current (With heatsink) @T _c =100°C (Note 2) | I _{F(AV)} | 4.0 | | | | | | | | A |
| | | 2.0 | | | | | | | | |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 120 | | | | | | | | A |
| I ² t Rating for Fusing (t < 8.3ms) | I ² t | 59.76 | | | | | | | | A ² s |
| Forward Voltage per element @IF=4.0A | V _{FM} | 1.1 | | | | | | | | V |
| Peak Reverse Current @T _A =25°C At Rated DC Blocking Voltage @T _A =125°C | I _R | 5.0 | | | | | | | | uA |
| | | 500 | | | | | | | | |
| Typical Thermal Resistance per leg (Note 3) | R _{θJA} | 40 | | | | | | | | °C/W |
| | R _{θJL} | 20 | | | | | | | | |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55to+150 | | | | | | | | °C |

Note:1."H":Halogen Free.

2. Mounted on glass epoxy PC board with 1.3mm² solder pad.

3.Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C..

Fig. 1 Forward Current Derating Curve

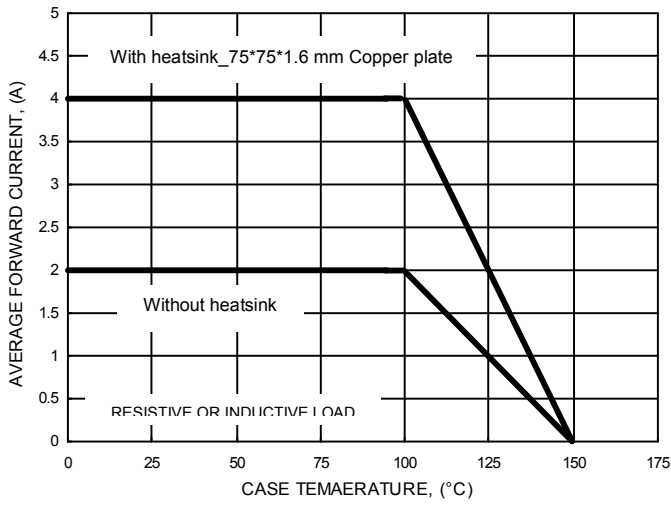


Fig. 2 Typical Fwd Characteristics

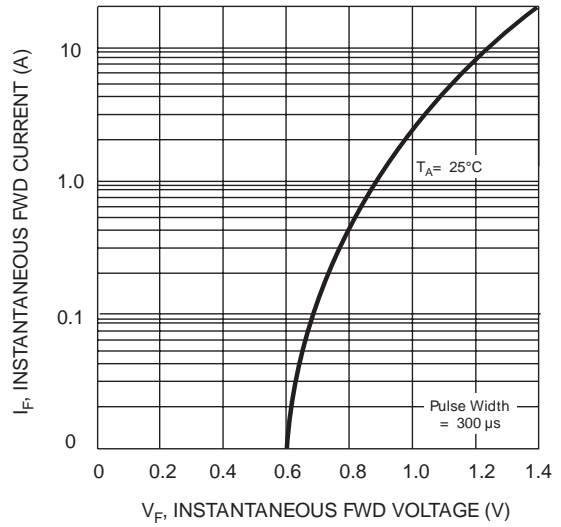


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

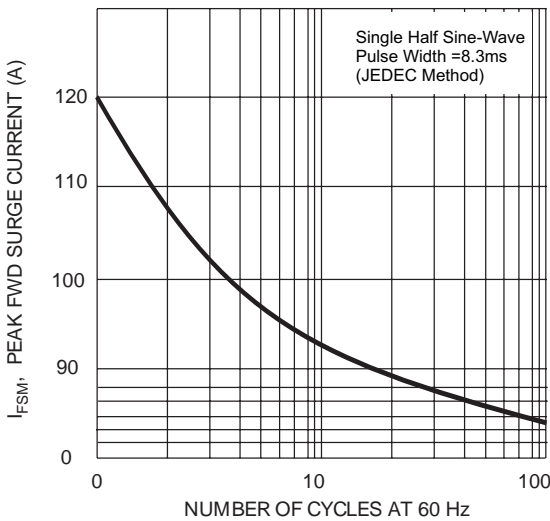


Fig. 4 Typical Junction Capacitance

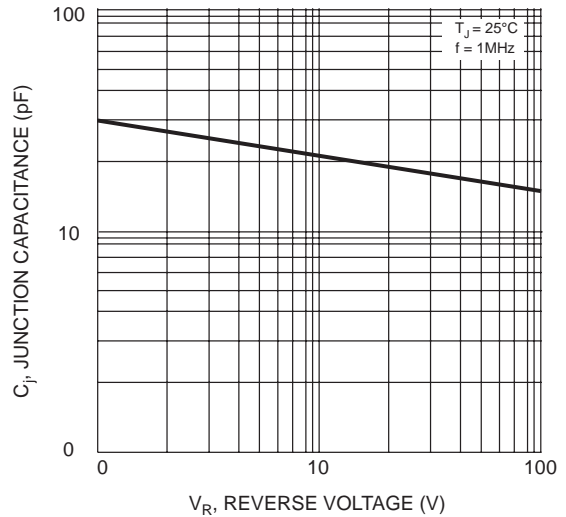
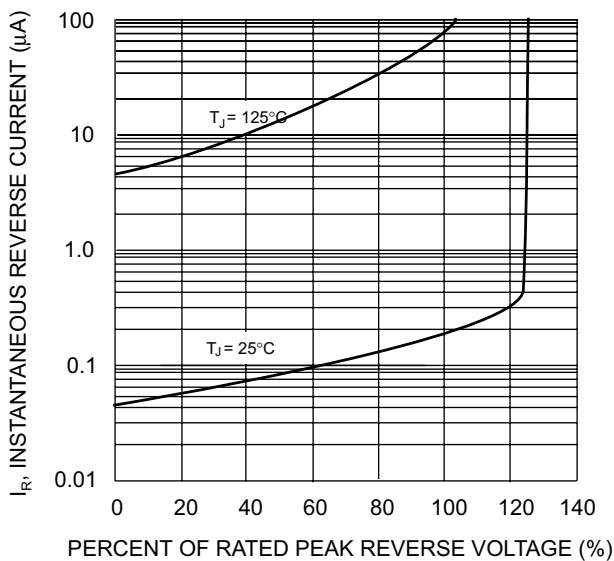


Fig. 5 Typical Reverse Characteristics (per element)



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