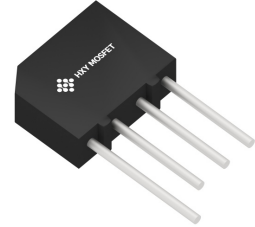




## Features

- This series is UL listed under the Recognized Component Index, file number E142814
- Ideal for printed circuit board mounting
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Built-in printed circuit board stand-offs
- High case dielectric strength
- High temperature soldering guaranteed 265°C /10 seconds at 5 lbs (2.3kg) tension

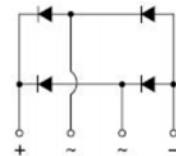


KBP

## Package Marking and Ordering Information

| Product ID     | Pack | Marking | Qty(PCS) |
|----------------|------|---------|----------|
| KBP4005-KBP410 | KBP  | KBP4xx  | 500      |

xx: From 005-10



## Maximum Ratings (Ta=25°C unless otherwise noted)

| Parameter                                                                             | Symbol           | KBP 4005     | KBP 401 | KBP 402 | KBP 404 | KBP 406 | KBP 408 | KBP 410 | Unit               |
|---------------------------------------------------------------------------------------|------------------|--------------|---------|---------|---------|---------|---------|---------|--------------------|
| Maximum repetitive peak reverse voltage                                               | VRRM             | 50           | 100     | 200     | 400     | 600     | 800     | 1000    | V                  |
| Maximum RMS bridge input voltage                                                      | VRMS             | 35           | 70      | 140     | 280     | 420     | 560     | 700     | V                  |
| Maximum DC blocking voltage                                                           | VDC              | 50           | 100     | 200     | 400     | 600     | 800     | 1000    | V                  |
| Maximum average forward rectified output current at TA=100°C                          | IF(AV)           | 4.0          |         |         |         |         |         |         | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM             | 150          |         |         |         |         |         |         | A                  |
| Rating for fusing ( t<8.3ms)                                                          | I <sup>2</sup> t | 166          |         |         |         |         |         |         | A <sup>2</sup> sec |
| Typical thermal resistance per element (1)                                            | ReJA             | 10           |         |         |         |         |         |         | °C/W               |
| Operating junction and storage temperature range                                      | TJ, TSTG         | -55 to + 150 |         |         |         |         |         |         | °C                 |

## Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
For Capacitive load derate by 20 %.

| Parameter                                                                                 | Symbol | KBP 4005   | KBP 401 | KBP 402 | KBP 404 | KBP 406 | KBP 408 | KBP 410 | Unit |
|-------------------------------------------------------------------------------------------|--------|------------|---------|---------|---------|---------|---------|---------|------|
| Maximum instantaneous forward voltage drop per leg at 4.0A                                | VF     | 1.1        |         |         |         |         |         |         | V    |
| Maximum DC reverse current at rated TA =25°C<br>DC blocking voltage per element TA =125°C | IR     | 10<br>1000 |         |         |         |         |         |         | μA   |

Notes: (1) Thermal resistance from Junction to Ambient on P.C. board mounting.



## Rating and Characteristic Curves (TA=25°C Unless otherwise noted)

Fig. 1 Derating Curve for Output Rectified Current

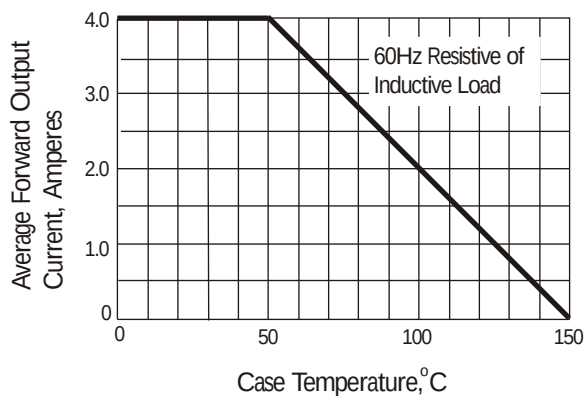


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

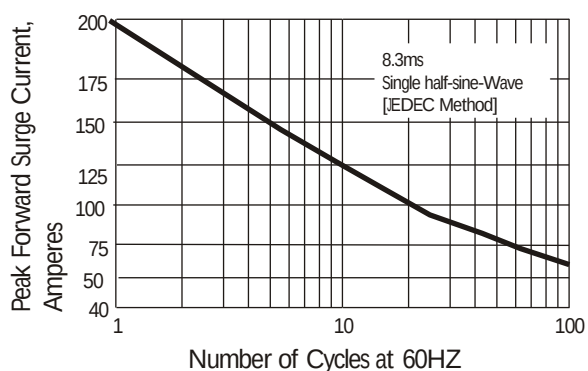


Fig. 3 Typical Instantaneous Forward Characteristics

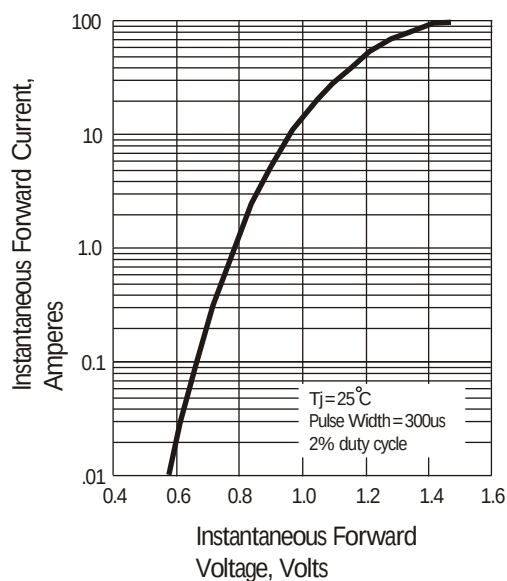


Fig. 4 Typical Reverse Characteristics

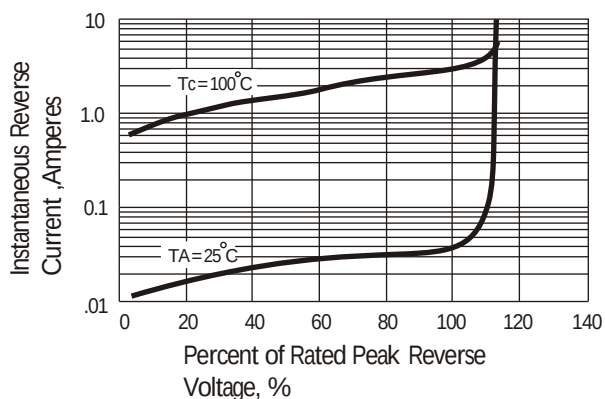
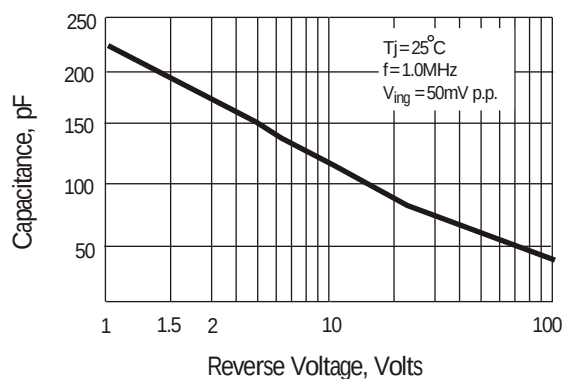


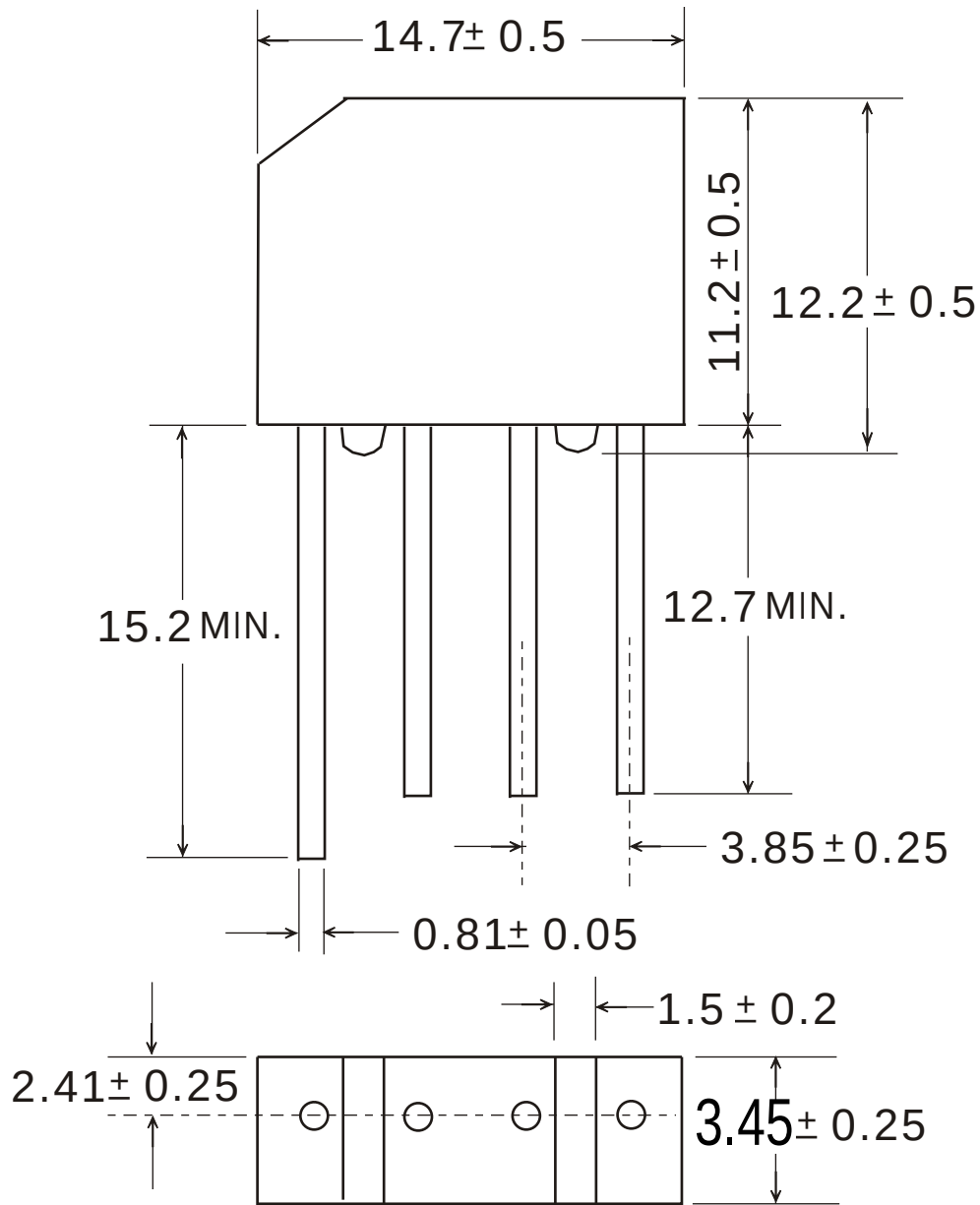
Fig. 5 Typical Junction Capacitance





## Package Outline Dimensions

KBP



Dimensions in millimeters(1mm =0.0394")



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