

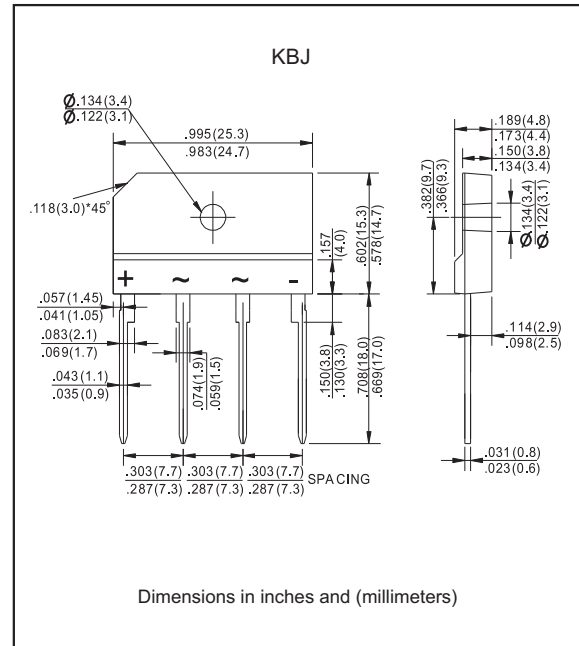
Features

- Rating to 1000V PRV.
- Ideal for printed circuit board.
- Low forward voltage drop, high current capability.
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product.
- Glass passivated chip junction.
- Lead-free parts meet RoHS requirements.
- Suffix "-H" indicates Halogen free parts, ex. KBJ1510-H.

Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, KBJ
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Mounting Position : Any

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

| PARAMETER | CONDITIONS | SYMBOL | MIN. | TYP. | MAX. | UNIT |
|---|---|-------------|------|------|------|----------------------|
| Maximum average forward rectified current | with heatsink Note 1 | $I_{F(AV)}$ | | | 15.0 | A |
| Forward surge current | 8.3ms single half sine-wave superimposed on rate load (JEDEC methode) | I_{FSM} | | | 240 | A |
| Reverse current | $V_R = V_{RRM} T_J = 25^\circ\text{C}$ | I_R | | | 5.0 | μA |
| | $V_R = V_{RRM} T_J = 125^\circ\text{C}$ | | | | 500 | |
| Rating for fusing | $t < 8.3 \text{ ms}$ | I^2t | | | 240 | A^2s |
| Storage temperature | | T_{STG} | -55 | | +150 | $^\circ\text{C}$ |

| SYMBOLS | V_{RRM}^{*1} (V) | V_{RMS}^{*2} (V) | V_R^{*3} (V) | V_F^{*4} (V) | Operating temperature $T_J, (^\circ\text{C})$ |
|----------|-----------------------|-----------------------|-------------------|-------------------|--|
| KBJ15005 | 50 | 35 | 50 | 1.0 | -55 to +150 |
| KBJ1501 | 100 | 70 | 100 | | |
| KBJ1502 | 200 | 140 | 200 | | |
| KBJ1504 | 400 | 280 | 400 | | |
| KBJ1506 | 600 | 420 | 600 | | |
| KBJ1508 | 800 | 560 | 800 | | |
| KBJ1510 | 1000 | 700 | 1000 | | |

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage @ $I_F=7.5\text{Adc}$

Rating and characteristic curves (KBJ15005 THRU KBJ1510)

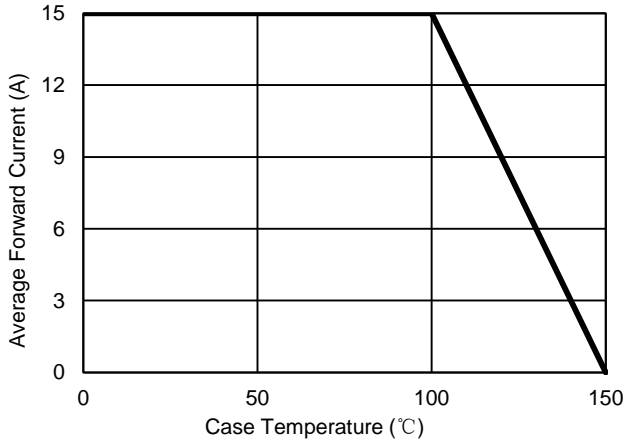


Fig. 1 - Forward Current Derating Curve

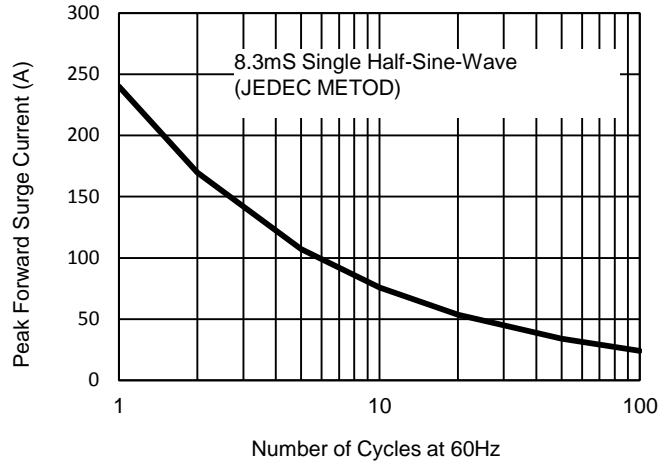


Fig. 2 - Maximum Non-Repetitive Surge Current

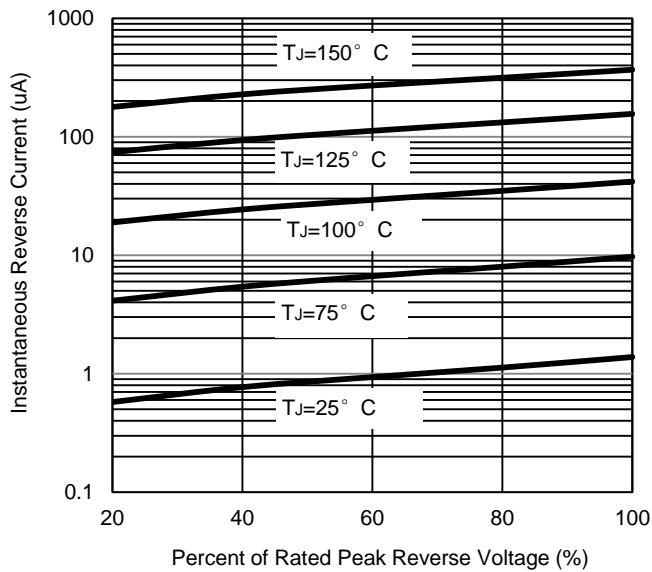


Fig. 3 - Typical Reverse Characteristics

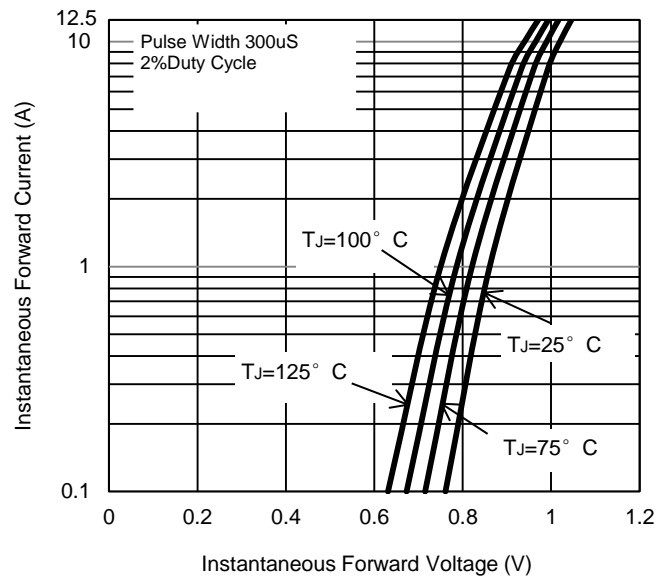
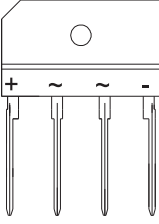
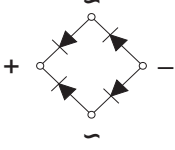


Fig. 4 - Typical Forward Characteristics

Pinning information

| Simplified outline | Symbol |
|---|---|
|  |  |

Marking

| Type number | Marking code |
|-------------|--------------|
| KBJ15005 | KBJ15005 |
| KBJ1501 | KBJ1501 |
| KBJ1502 | KBJ1502 |
| KBJ1504 | KBJ1504 |
| KBJ1506 | KBJ1506 |
| KBJ1508 | KBJ1508 |
| KBJ1510 | KBJ1510 |