

## Glass Passivated Low Profile Bridge Rectifier

**Voltage**

**600 V**

**Current**

**10A**

### Features

- Glass passivated chip junction
- Thin single in-line package
- High surge current capability



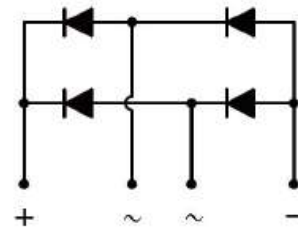
### Mechanical Data

- Case : KBJB Package
- Molding compound meets UL 94 V-0 flammability Rating, RoHS-compliant, Halogen free
- Terminals : Tin plated leads , Solderable per J-STD-002 and JESD22-B102
- Approx. Weight : 2.5519 grams

### Application

- Slim Adapter Power
- Game Console Power
- TV Power

## KBJB



| Key Parameters     |              |
|--------------------|--------------|
| Parameter          | Value        |
| $V_{RRM}$          | <b>600V</b>  |
| $I_F(AV)$          | <b>10A</b>   |
| $I_{FSM}$          | <b>220A</b>  |
| $I_R$              | <b>5uA</b>   |
| $T_J \text{ max.}$ | <b>150°C</b> |
| Package            | <b>KBJB</b>  |

**Maximum Ratings and Thermal Characteristics** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

| PARAMETER                                                                            |                             | SYMBOL          | LIMIT   | UNITS                |
|--------------------------------------------------------------------------------------|-----------------------------|-----------------|---------|----------------------|
| Maximum Repetitive Peak Reverse Voltage                                              |                             | $V_{RRM}$       | 600     | V                    |
| Maximum RMS Voltage                                                                  |                             | $V_{RMS}$       | 420     | V                    |
| Maximum DC Blocking Voltage                                                          |                             | $V_{DC}$        | 600     | V                    |
| Maximum Average Forward Current                                                      | With heatsink               | $I_{F(AV)}$     | 10      | A                    |
|                                                                                      | Without heatsink            |                 | 3.2     |                      |
| Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load | @ $T_A = 25^\circ\text{C}$  | $I_{FSM}$       | 220     | A                    |
|                                                                                      | @ $T_A = 125^\circ\text{C}$ |                 | 176     |                      |
| Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load | @ $T_A = 25^\circ\text{C}$  | $I_{FSM}$       | 440     | A                    |
|                                                                                      | @ $T_A = 125^\circ\text{C}$ |                 | 352     |                      |
| $I^2 t$ rating for fusing ( $t = 8.3\text{ms}$ )                                     |                             | $I^2 t$         | 200.9   | $\text{A}^2\text{S}$ |
| Typical Junction Capacitance<br>Measured at 1 MHz And Applied $V_R = 4\text{ V}$     |                             | $C_J$           | 70      | pF                   |
| Typical Thermal Resistance (Note1)                                                   |                             | $R_{\theta JA}$ | 13      | $^\circ\text{C/W}$   |
|                                                                                      |                             | $R_{\theta JL}$ | 5       |                      |
|                                                                                      |                             | $R_{\theta JC}$ | 2       |                      |
| Operating junction and storage temperature range                                     |                             | $T_J, T_{STG}$  | -55~150 | $^\circ\text{C}$     |
| Mounting torque @ Recommend torque:5Kg.cm                                            |                             | Tor             | 8       | Kg.cm                |

**Electrical Characteristics** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

| PARAMETER       | SYMBOL | TEST CONDITION                                | MIN. | TYP. | MAX. | UNITS         |
|-----------------|--------|-----------------------------------------------|------|------|------|---------------|
| Forward Voltage | $V_F$  | $I_F = 5\text{ A}, T_J = 25^\circ\text{C}$    | -    | -    | 1.0  | V             |
| Reverse Current | $I_R$  | $V_R = 600\text{ V}, T_J = 25^\circ\text{C}$  | -    | -    | 5    | $\mu\text{A}$ |
|                 |        | $V_R = 600\text{ V}, T_J = 125^\circ\text{C}$ | -    | -    | 100  |               |

NOTES :

1. Device mounted on 75mm \* 45mm \* 5.5mm Aluminum Plate Heatsink.

TYPICAL CHARACTERISTIC CURVES

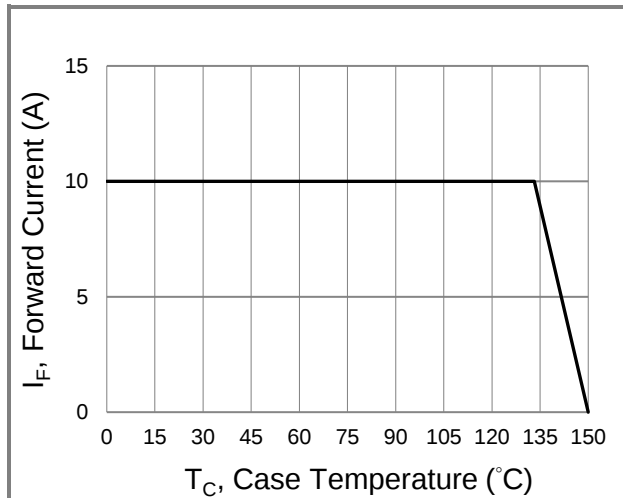


Fig.1 Forward Current Derating Curve

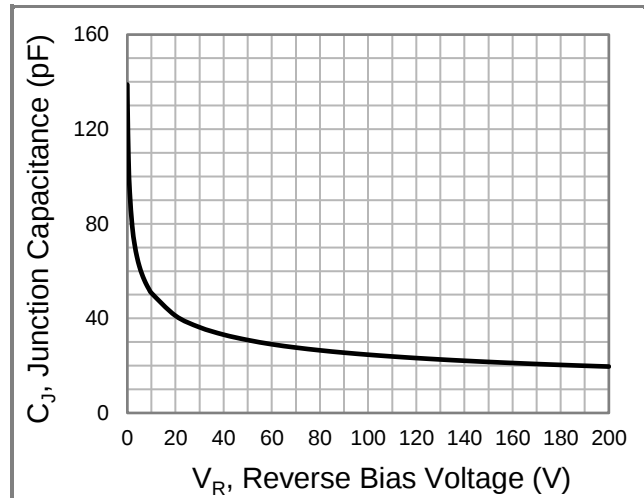


Fig.2 Typical Junction Capacitance

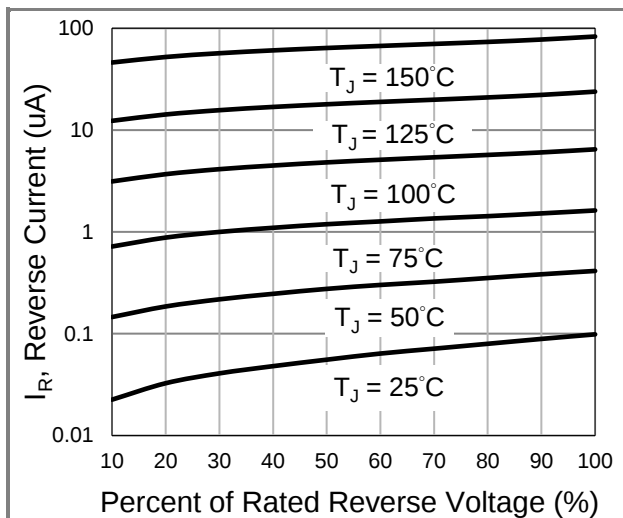


Fig.3 Typical Reverse Characteristics

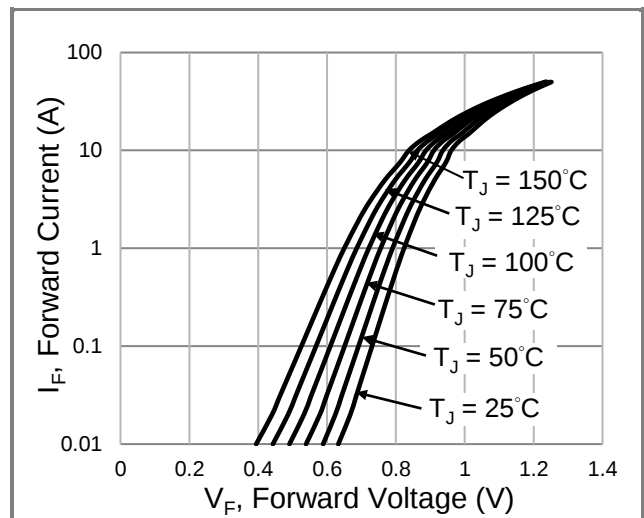
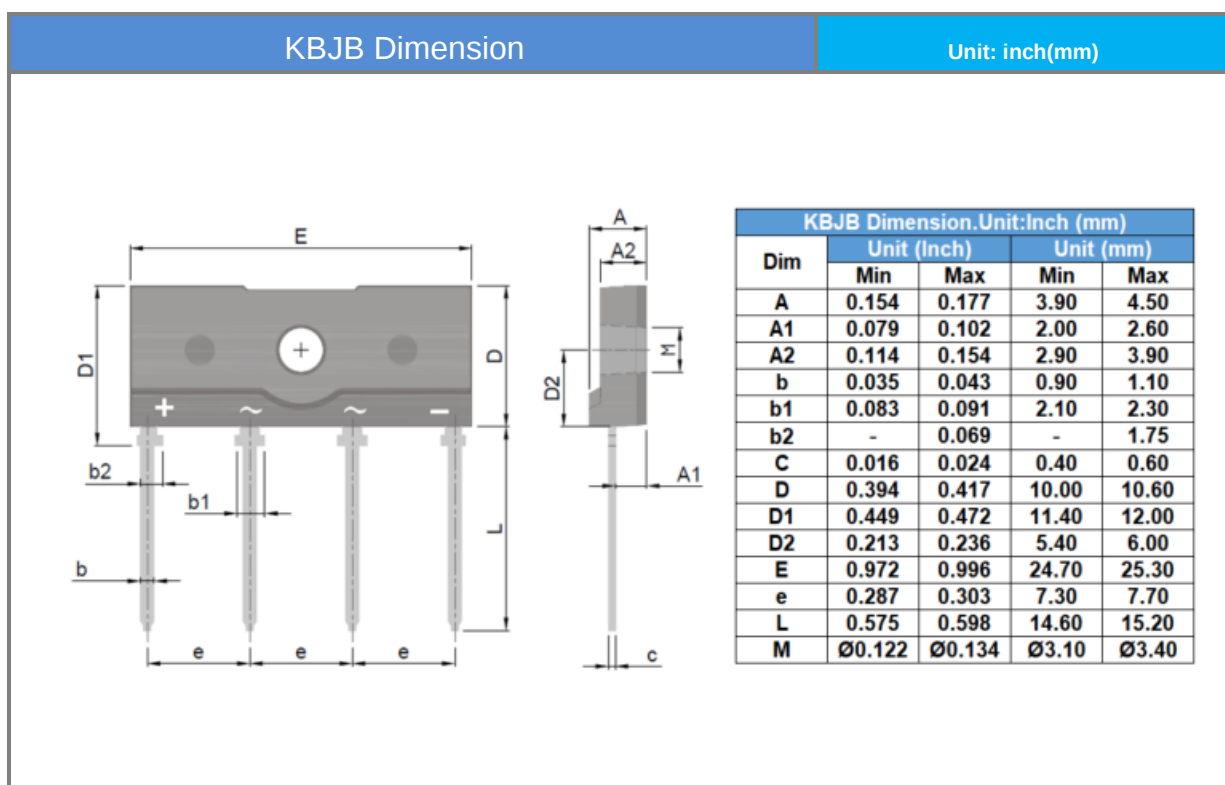


Fig.4 Typical Forward Characteristics

## Product and Packing Information

| Part No. | Package Type | Packing Type  | Marking  |
|----------|--------------|---------------|----------|
| KBJB1006 | KBJB         | 20 pcs / tube | KBJB1006 |

## Packaging Information



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