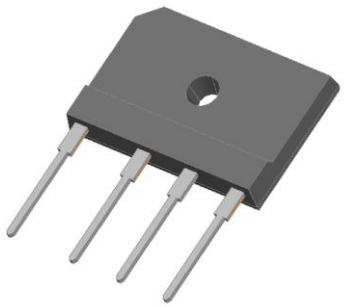
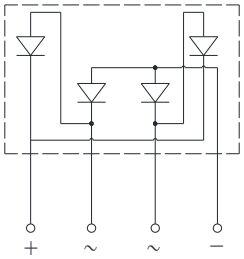
# Super Fast Recovery Bridge Rectifiers






## Features

- Glass passivated chip junction
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

## Typical Applications

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, power supply, switching mode power supply, adapter, audio equipment, and home appliances applications.

## Mechanical Data

- **Package**: 6KBJ
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

## ■Maximum Ratings (Ta=25℃ Unless otherwise specified)

| PARAMETER | | SYMBOL | UNIT | EGBJ1506 |
|---|---|---|---|---|
| Device marking code | | | | EGBJ1506 |
| Maximum Repetitive Peak Reverse Voltage | | $V_{RRM}$ | V | 600 |
| Maximum RMS Voltage | | $V_{RMS}$ | V | 420 |
| Maximum DC blocking Voltage | | $V_{DC}$ | V | 600 |
| Average rectified output current @60Hz sine wave, R-load | With heatsink Tc =115℃ | $I_O$ | A | 15.0 |
| | Without heatsink Ta =25℃ | | | 3.2 |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃ | | $I_{FSM}$ | A | 180 |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃ | | | | 360 |
| Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode | | $I^2t$ | $A^2S$ | 134 |
| Storage temperature | | Tstg | ℃ | -55 ~ +150 |
| Junction temperature | | Tj | ℃ | -55 ~ +150 |
| Dielectric strength @ Terminals to case, AC 1 minute | | Vdis | KV | 2.5 |
| Mounting torque @Recommend torque：5kg·cm | | Tor | kg· cm | 8 |

## ■Electrical Characteristics（$T_a$=25℃ Unless otherwise specified）

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | EGBJ1506 |
|---|---|---|---|---|
| Maximum reverse recovery time | $T_{RR}$ | ns | $I_F$=0.5A,$I_R$=1.0A, $I_{RR}$=0.25A | 35 |
| Maximum instantaneous forward voltage drop per diode | $V_F$ | V | $I_{FM}$=7.5A | 2.0 |
| Maximum DC reverse current at rated DC blocking voltage per diode | $I_R$ | μA | Tj =25℃ | 5 |
| | | | Tj =125℃ | 100 |
| Typical junction capacitance | Cj | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 65 |

## ■Thermal Characteristics （$T_a$=25℃ Unless otherwise specified）

| PARAMETER | | SYMBOL | UNIT | EGBJ1506 |
|---|---|---|---|---|
| Thermal Resistance | Between junction and ambient, Without heatsink | $R_{\theta J-A}$ | ℃/W | 18.0 |
| | Between junction and case, With heatsink | $R_{\theta J-C}$ | | 1.5 |

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## ■Ordering Information (Example)

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|---|
| EGBJ1506 | B1 | Approximate 6.5 | 15 | 750 | 1500 | TUBE |

## ■ Characteristics (Typical)

FIG1:Io-Tc Curve

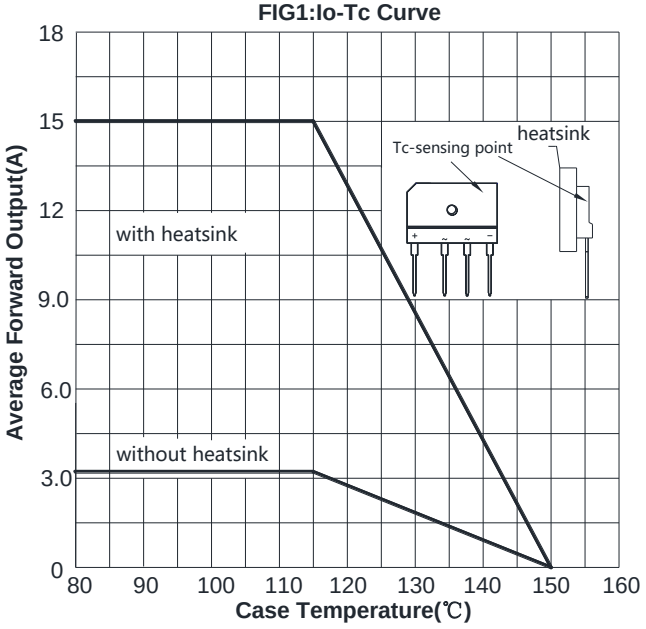



FIG2:Surge Forward Current Capability

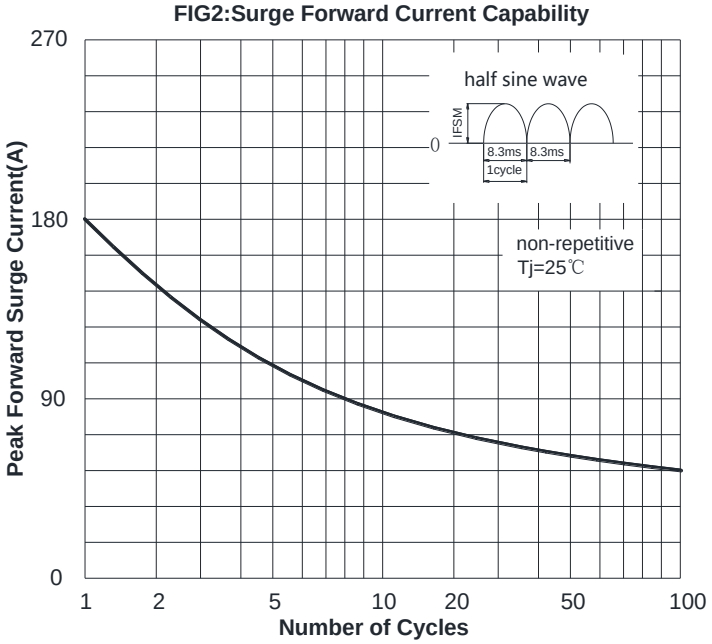


**FIG3: Typical Forward Voltage**

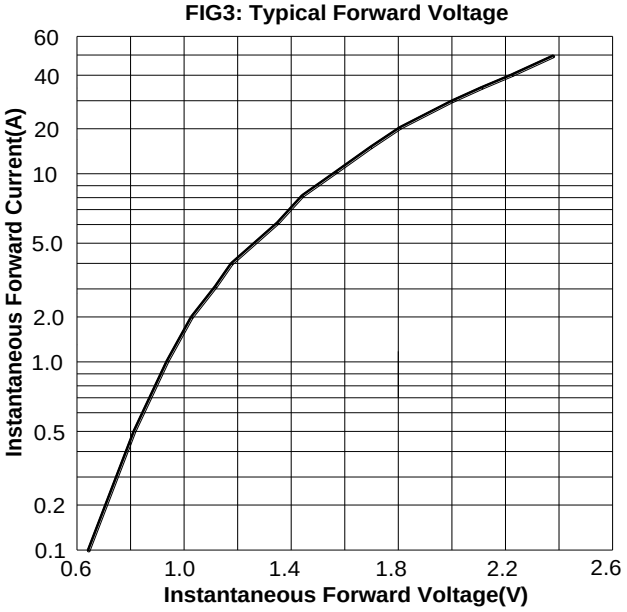



**FIG4:Typical Reverse Characteristics**

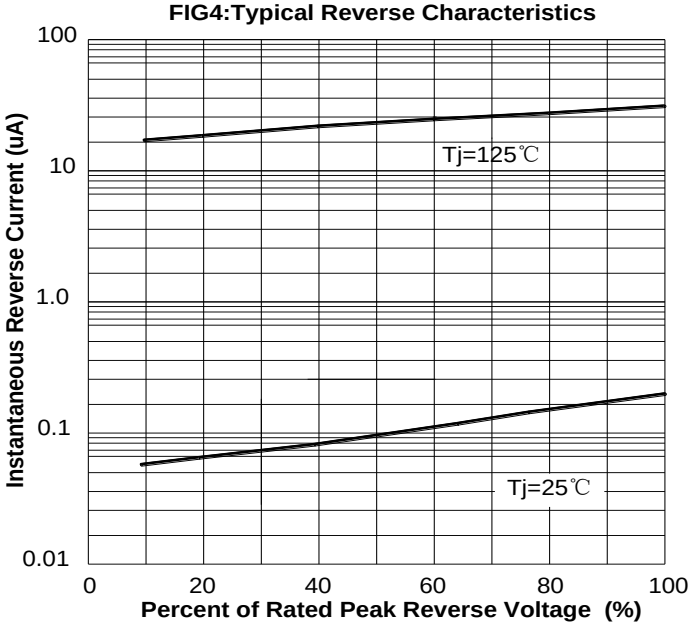
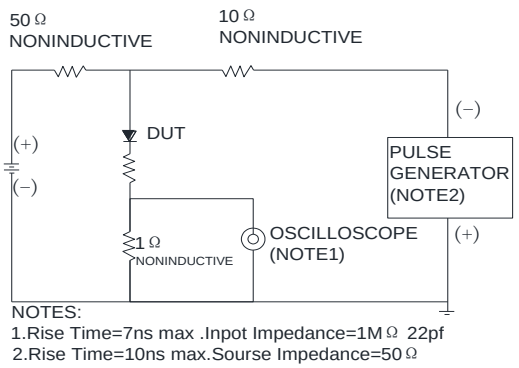
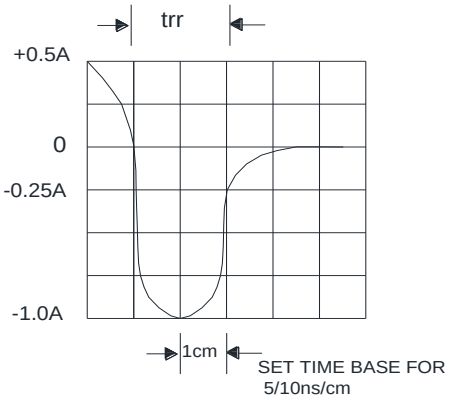
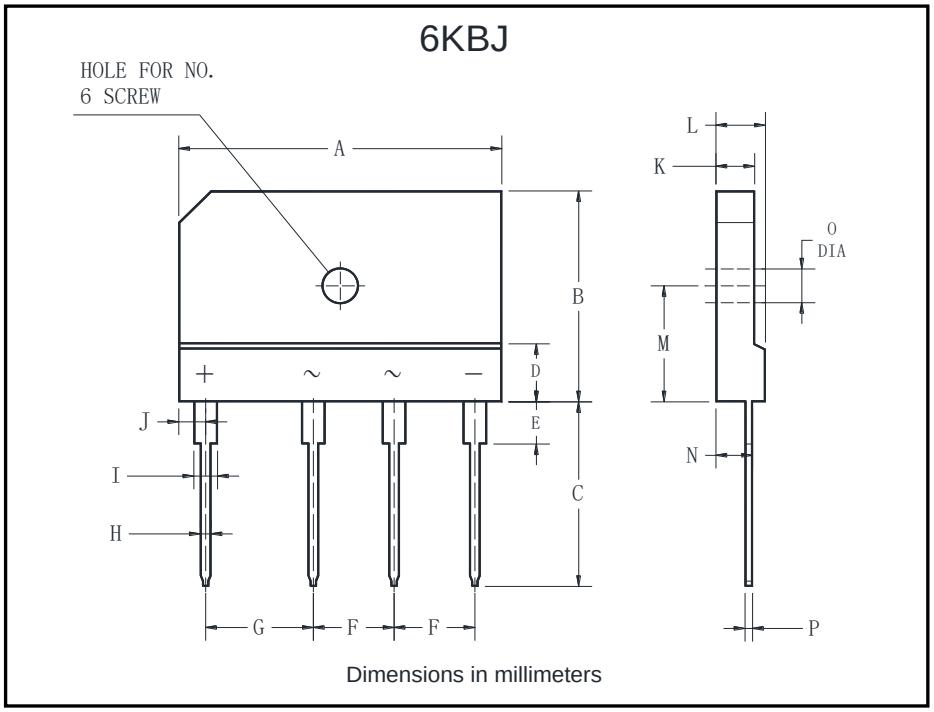



**FIG.5: Diagram of circuit and Testing wave form of reverse recovery time**



## ■ Outline Dimensions




| 6KBJ | | |
|---|---|---|
| Dim | Min | Max |
| A | 29.7 | 30.3 |
| B | 19.7 | 20.3 |
| C | 17.0 | 18.0 |
| D | 4.8 | 5.8 |
| E | 3.8 | 4.2 |
| F | 7.3 | 7.7 |
| G | 9.8 | 10.2 |
| H | 0.9 | 1.1 |
| I | 2.0 | 2.4 |
| J | 2.3 | 2.7 |
| K | 3.4 | 3.8 |
| L | 4.4 | 4.8 |
| M | 10.8 | 11.2 |
| N | 3.1 | 3.7 |
| O | 3.1 | 3.4 |
| P | 0.6 | 0.8 |

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