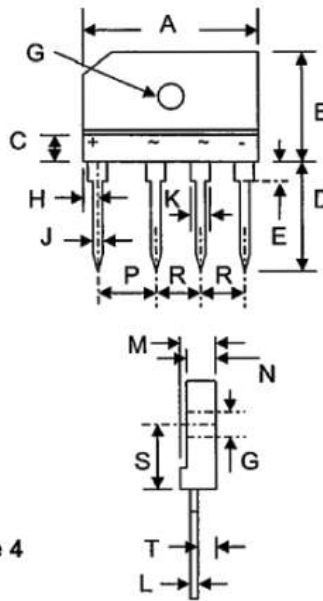


### Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Recognized File # E157705



| GBJ-6                |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 29.7 | 30.3 |
| B                    | 19.7 | 20.3 |
| C                    | —    | 5.0  |
| D                    | 17.0 | 18.0 |
| E                    | 3.8  | 4.2  |
| G                    | 3.1Ø | 3.4Ø |
| H                    | 2.3  | 2.7  |
| J                    | 0.9  | 1.1  |
| K                    | 1.8  | 2.2  |
| L                    | 0.6  | 0.8  |
| M                    | 4.4  | 4.8  |
| N                    | 3.4  | 3.8  |
| P                    | 9.8  | 10.2 |
| R                    | 7.3  | 7.7  |
| S                    | 10.8 | 11.2 |
| T                    | 2.3  | 2.7  |
| All Dimensions in mm |      |      |

### Mechanical Data

- Case: GBJ-6, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 7.0 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 10 cm·kg (8.8 in·lbs) Max.
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Characteristic   | Symbol          | GBJ8A       | GBJ8B | GBJ8D | GBJ8G | GBJ8J | GBJ8K | GBJ8M | Unit               |
|--|-----------------|-------------|-------|-------|-------|-------|-------|-------|--------------------|
| Peak Repetitive Reverse Voltage  | $V_{RRM}$       |             |       |       |       |       |       |       | V                  |
| Working Peak Reverse Voltage   | $V_{RWM}$       | 50          | 100   | 200   | 400   | 600   | 800   | 1000  |                    |
| DC Blocking Voltage  | $V_R$           |             |       |       |       |       |       |       |                    |
| RMS Reverse Voltage  | $V_{R(RMS)}$    | 35          | 70    | 140   | 280   | 420   | 560   | 700   | V                  |
| Average Rectified Output Current @ $T_C = 110^\circ\text{C}$ (Note 1)  | $I_o$           | 8.0         |       |       |       |       |       |       | A                  |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$       | 200         |       |       |       |       |       |       | A                  |
| Forward Voltage per diode @ $I_F = 4.0\text{A}$  | $V_{FM}$        | 1.0         |       |       |       |       |       |       | V                  |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$        | $I_R$           | 10<br>250   |       |       |       |       |       |       | $\mu\text{A}$      |
| Typical Thermal Resistance per leg (Note 2)  | $R_{\theta JA}$ | 26          |       |       |       |       |       |       | $^\circ\text{C/W}$ |
| Typical Thermal Resistance per leg (Note 1)  | $R_{\theta JC}$ | 2.8         |       |       |       |       |       |       | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range  | $T_J, T_{STG}$  | -55 to +150 |       |       |       |       |       |       | $^\circ\text{C}$   |

Note: 1. Device mounted on 100 x 100 x 1.6mm thick Al plate heatsink.  
2. Device mounted on P.C.B. without heatsink.

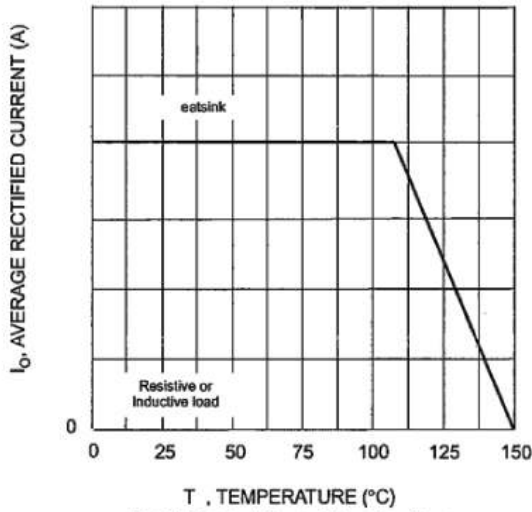


Fig. 1 Forward Current Derating Curve

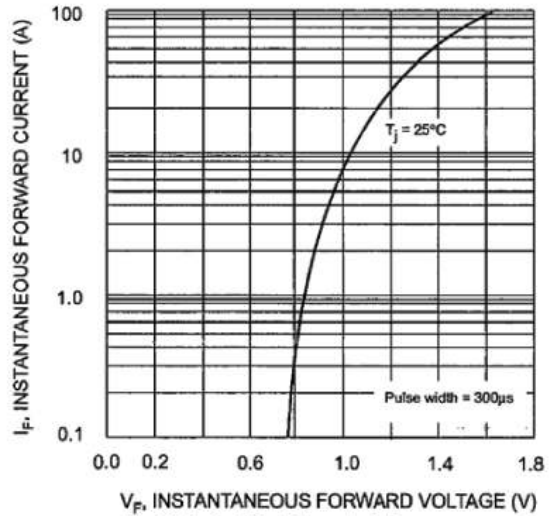


Fig. 2 Typical Fwd Characteristics

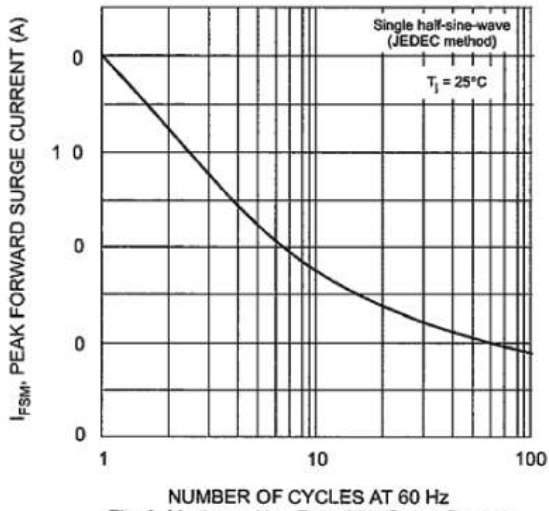


Fig. 3 Maximum Non-Repetitive Surge Current

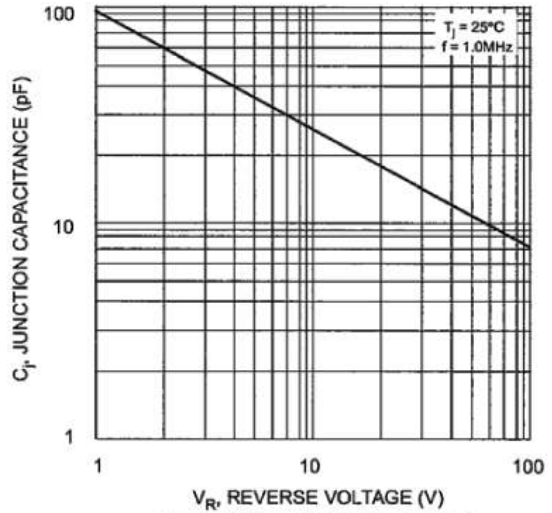
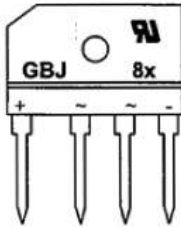


Fig. 4 Typical Junction Capacitance

### MARKING INFORMATION



GBJ8x = Manufacturer's Logo

x = Device Number

Polarity = A, B, D, G, J, K or M

= As Marked on Body

### PACKAGING INFORMATION

| <b>BULK</b>                 |                   |                                  |                   |                               |                   |                              |
|-----------------------------|-------------------|----------------------------------|-------------------|-------------------------------|-------------------|------------------------------|
| Tube Size<br>L x W x H (mm) | Quantity<br>(PCS) | Inner Box Size<br>L x W x H (mm) | Quantity<br>(PCS) | Carton Size<br>L x W x H (mm) | Quantity<br>(PCS) | Approx. Gross Weight<br>(KG) |
| 475 x 40 x 7                | 15                | 490 x 145 x 135                  | 750               | 510 x 305 x 160               | 1,500             | 16.0                         |

**Note:** 1. Anti-static tube, water clear color.



### ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| GBJ8A       | SIL Bridge   | 15 Units/Tube     |
| GBJ8B       | SIL Bridge   | 15 Units/Tube     |
| GBJ8D       | SIL Bridge   | 15 Units/Tube     |
| GBJ8G       | SIL Bridge   | 15 Units/Tube     |
| GBJ8J       | SIL Bridge   | 15 Units/Tube     |
| GBJ8K       | SIL Bridge   | 15 Units/Tube     |
| GBJ8M       | SIL Bridge   | 15 Units/Tube     |

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, GBJ8A-LF.

Surge Components Inc.  
95 East Jeffryn Boulevard  
Deer Park, NY 11729  
Tel: 631-595-1818  
[www.surgecomponents.com](http://www.surgecomponents.com)

*We power your everyday.*