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|---|----------------|
|  | <b>E502650</b> |
|---|----------------|

**Features**

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Low Forward Voltage Drop and High Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 3°C/W Junction to Case(Note2)

**Mechanical Data**

- Mounting Torque: 0.5 in-lbs Maximum

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| KBJ4005G        | KBJ4005G       | 50V                                    | 35V                 | 50V                         |
| KBJ401G         | KBJ401G        | 100V                                   | 70V                 | 100V                        |
| KBJ402G         | KBJ402G        | 200V                                   | 140V                | 200V                        |
| KBJ404G         | KBJ404G        | 400V                                   | 280V                | 400V                        |
| KBJ406G         | KBJ406G        | 600V                                   | 420V                | 600V                        |
| KBJ408G         | KBJ408G        | 800V                                   | 560V                | 800V                        |
| KBJ410G         | KBJ410G        | 1000V                                  | 700V                | 1000V                       |

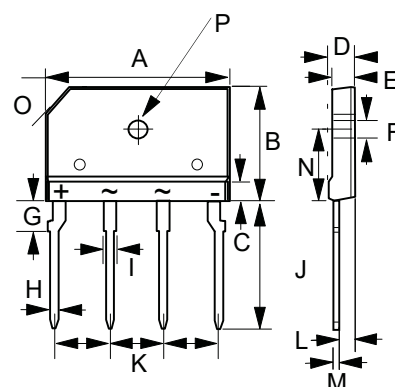
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

|   |                  |                    |   |
|---|------------------|--------------------|---|
| Average Forward Current                                 | $I_{F(AV)}$      | 4.0A               | $T_C = 110^\circ C$   |
| Peak Forward Surge Current                              | $I_{FSM}$        | 150A               | 8.3ms, Half Sine  |
| Maximum Forward Voltage Drop Per Element                | $V_F$            | 1.0V               | $I_{FM} = 2.0A$ Per Element;<br>$T_J = 25^\circ C$ (Note 3) |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | $I_R$            | 5μA<br>500μA       | $T_J = 25^\circ C$<br>$T_J = 125^\circ C$                   |
| I <sup>2</sup> t Rating for Fusing                      | I <sup>2</sup> t | 93A <sup>2</sup> S | t < 8.3ms   |
| Typical Junction Capacitance                            | $C_J$            | 50pF               | Measured at 1.0MHz,<br>$V_R = 4.0V$                         |
| Dielectric Strength                                     | $V_{dis}$        | 2KV                | Terminals to Case,<br>AC 1 Minute                           |

- Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.  
 2. Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.  
 3. Pulse Test: Pulse Width 300usec, Duty Cycle 1%

**4 Amp  
Glass Passivated  
Bridge Rectifiers  
50 to 1000 Volts**

**KBJ**



| DIM | DIMENSIONS  |       |           |       | NOTE |
|-----|-------------|-------|-----------|-------|------|
|     | INCHES      |       | MM        |       |      |
|     | MIN         | MAX   | MIN       | MAX   |      |
| A   | 0.976       | 0.992 | 24.80     | 25.20 |      |
| B   | 0.579       | 0.602 | 14.70     | 15.30 |      |
| C   | 0.154       | 0.161 | 3.90      | 4.10  |      |
| D   | 0.173       | 0.189 | 4.40      | 4.80  |      |
| E   | 0.134       | 0.150 | 3.40      | 3.80  |      |
| F   | 0.122       | 0.134 | 3.10      | 3.40  | Φ    |
| G   | 0.130       | 0.146 | 3.30      | 3.70  |      |
| H   | 0.035       | 0.043 | 0.90      | 1.10  |      |
| I   | 0.059       | 0.075 | 1.50      | 1.90  |      |
| J   | 0.669       | 0.709 | 17.00     | 18.00 |      |
| K   | 0.287       | 0.303 | 7.30      | 7.70  |      |
| L   | 0.098       | 0.114 | 2.50      | 2.90  |      |
| M   | 0.024       | 0.031 | 0.60      | 0.80  |      |
| N   | 0.366       | 0.413 | 9.30      | 10.50 |      |
| O   | 0.118 X 45° |       | 3.0 X 45° |       |      |
| P   | 0.122       | 0.134 | 3.10      | 3.40  | Φ    |

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

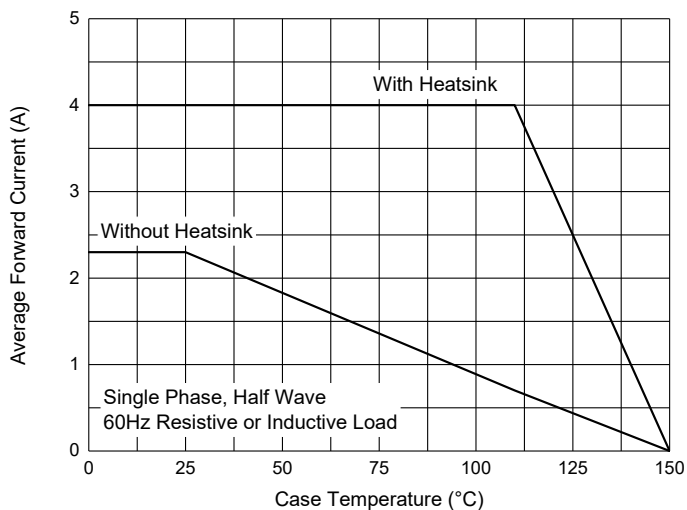


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

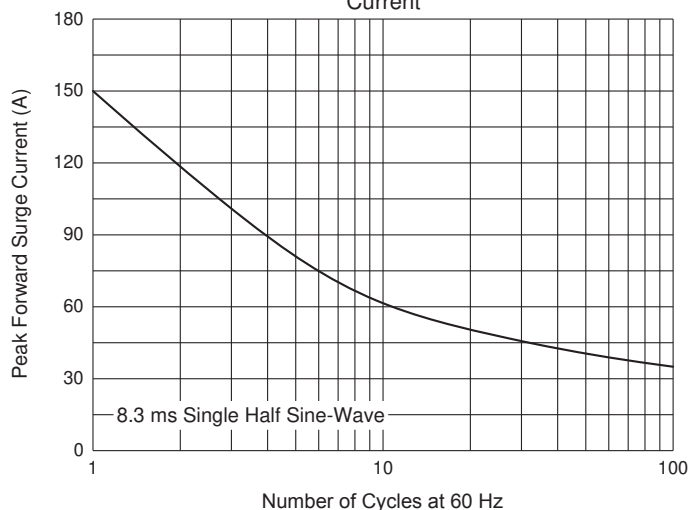


Fig. 3 - Typical Instantaneous Forward Characteristics

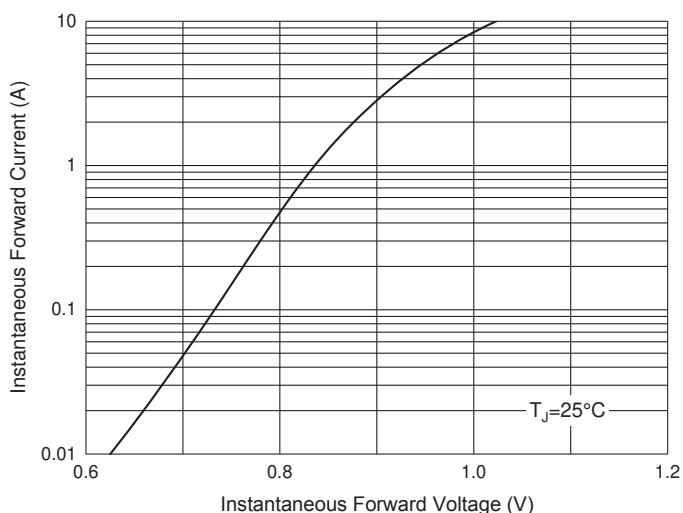


Fig. 4 - Typical Reverse Leakage Characteristics

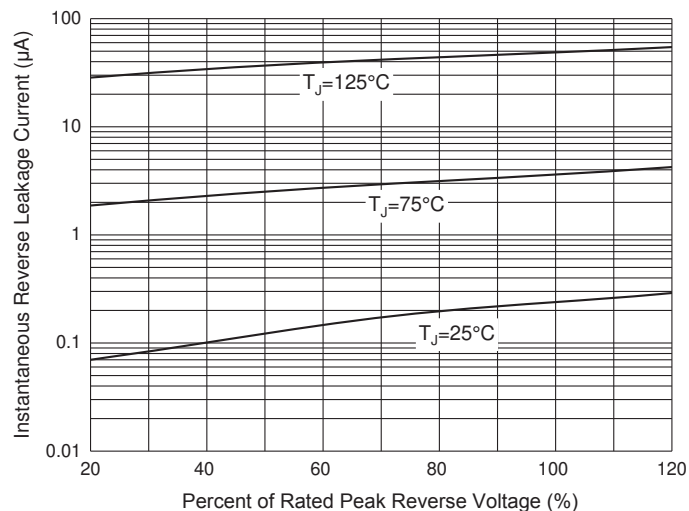
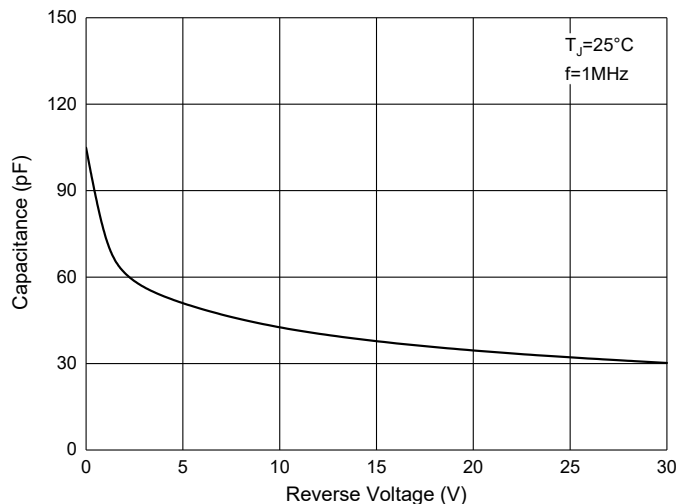


Fig. 5 - Typical Junction Capacitance



## Ordering Information

| Device         | Packing                                |
|----------------|--|
| Part Number-BP | Bulk:20pcs/Tube,1Kpcs/Box,2Kpcs/Carton |

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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