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|---|----------------|
|  | E502650 |
|---|----------------|

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- High Surge Forward Current Capability
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 1.5°C/W Junction to Case With Heatsink
- Typical Thermal Resistance: 55°C/W Junction to Ambient Without Heatsink

Mechanical Data

- Mounting Torque: 0.5 N•m

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| UD6KB05 | UD6KB05 | 50V | 35V | 50V |
| UD6KB10 | UD6KB10 | 100V | 70V | 100V |
| UD6KB20 | UD6KB20 | 200V | 140V | 200V |
| UD6KB40 | UD6KB40 | 400V | 280V | 400V |
| UD6KB60 | UD6KB60 | 600V | 420V | 600V |
| UD6KB80 | UD6KB80 | 800V | 560V | 800V |
| UD6KB100 | UD6KB100 | 1000V | 700V | 1000V |

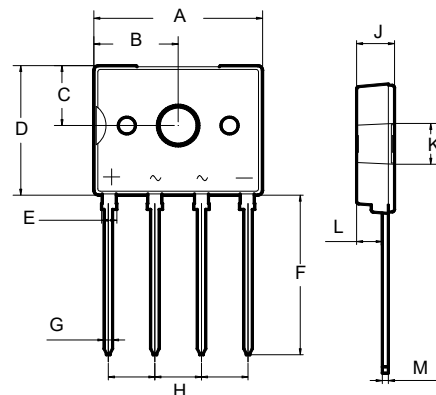
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|--------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 6.0A | $T_C=140^{\circ}\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 170A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.0V | $I_{FM}=3.0\text{A};$ $T_J=25^{\circ}\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 10μA | $T_J=25^{\circ}\text{C}$ |
| I^2t Rating for fusing | I^2t | 93A ² S | (1ms < t < 8.3ms) |

Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7a

6 Amp Glass Passivated Bridge Rectifier 50 to 1000 Volts

D3K



| DIMENSIONS | | | | | |
|------------|--------|-------|-------|-------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | 0.524 | 0.563 | 13.30 | 14.30 | |
| B | 0.252 | 0.291 | 6.40 | 7.40 | |
| C | 0.177 | 0.217 | 4.50 | 5.50 | |
| D | 0.406 | 0.445 | 10.30 | 11.30 | |
| E | 0.041 | 0.057 | 1.05 | 1.45 | |
| F | 0.516 | 0.531 | 13.10 | 13.50 | |
| G | 0.024 | 0.033 | 0.60 | 0.85 | |
| H | 0.146 | 0.154 | 3.70 | 3.90 | |
| J | 0.102 | 0.142 | 2.60 | 3.60 | |
| K | 0.122 | 0.134 | 3.10 | 3.40 | |
| L | 0.079 | 0.087 | 2.00 | 2.20 | |
| M | 0.016 | 0.024 | 0.40 | 0.60 | |

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

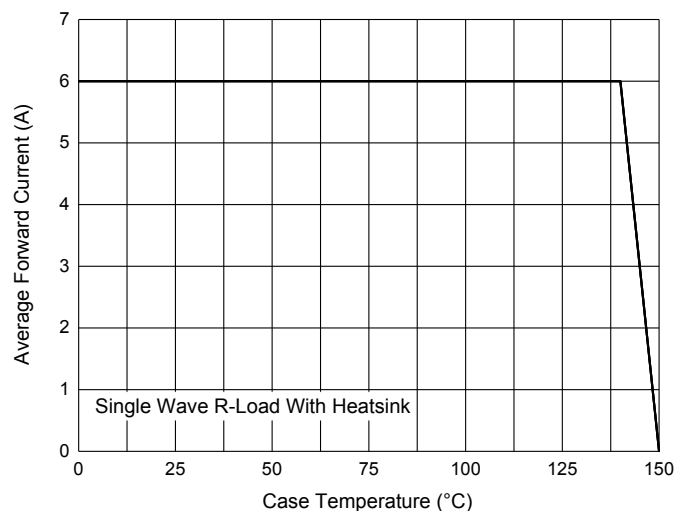


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

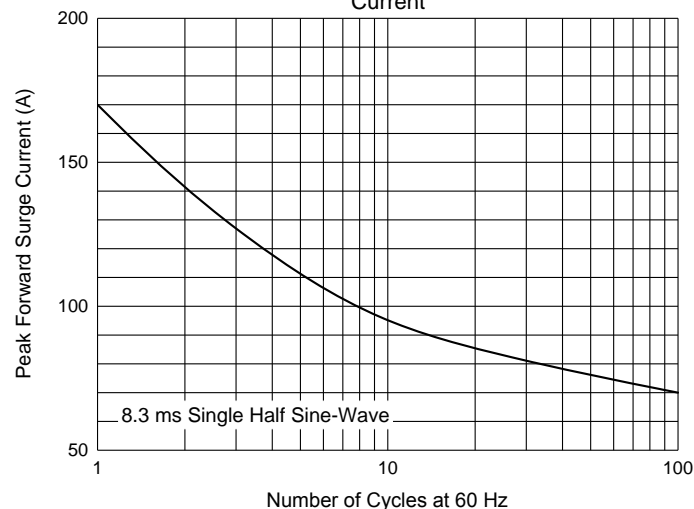


Fig. 3 - Typical Instantaneous Forward Characteristics

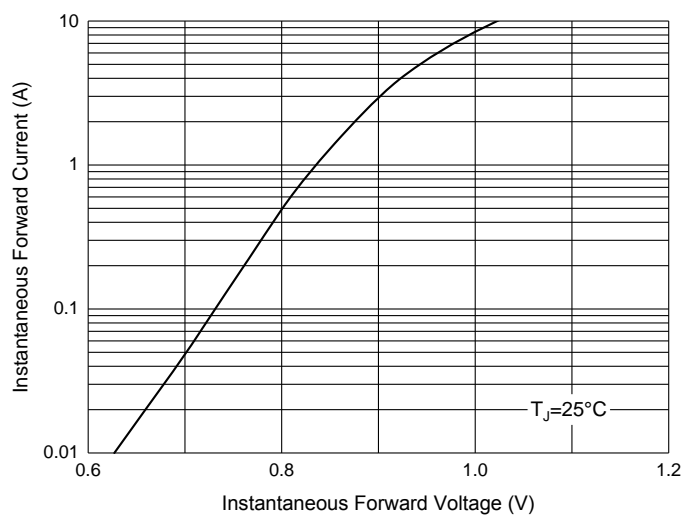
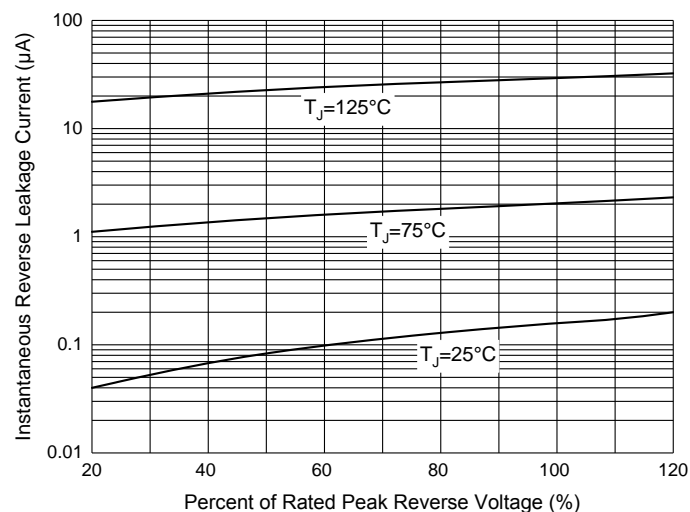


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

| Device | Packing |
|----------------|--------------------------------------|
| Part Number-BP | Ó\KÍ] & Ð à^Éí €€ & Ð[çÉ S] & Ðæð } |

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

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