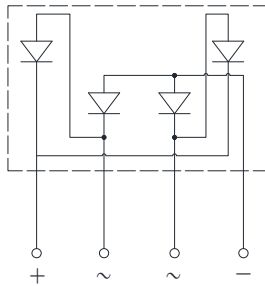
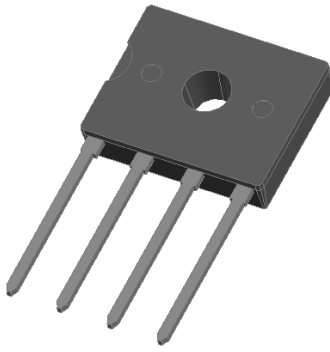


Bridge Rectifiers



Features

- UL recognition, file #E230084
- 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:** D3K
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 ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | D6UB05 | D6UB10 | D6UB20 | D6UB40 | D6UB60 | D6UB80 | D6UB100 |
|---|--|------------------|------------|--------|--------|--------|--------|--------|---------|
| Device marking code | | | D6UB05 | D6UB10 | D6UB20 | D6UB40 | D6UB60 | D6UB80 | D6UB100 |
| Maximum Repetitive Peak Reverse Voltage | VRRM | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Maximum RMS Voltage | VRMS | V | 35 | 70 | 140 | 280 | 420 | 560 | 700 |
| Maximum DC blocking Voltage | VDC | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average rectified output current @60Hz sine wave, R-load | With heatsink $T_c = 138^\circ\text{C}$ | IO | A | 6.0 | | | | | |
| | Without heatsink $T_a = 25^\circ\text{C}$ | | | 1.5 | | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$ | IFSM | A | 170 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^\circ\text{C}$ | | | 320 | | | | | | |
| Current squared time @1ms $\leq t \leq$ 8.3ms $T_j=25^\circ\text{C}$, Rating of per diode | I ² t | A ² s | 102.4 | | | | | | |
| Storage temperature | T _{stg} | °C | -55 ~ +150 | | | | | | |
| Junction temperature | T _j | °C | -55 ~ +150 | | | | | | |
| Dielectric strength @ Terminals to case, AC 1 minute | V _{dis} | KV | 2 | | | | | | |
| Mounting torque @Recommend torque: 5kg·cm | Tor | kg·cm | 8 | | | | | | |



D6UB05 THRU D6UB100

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | D6UB05 | D6UB10 | D6UB20 | D6UB40 | D6UB60 | D6UB80 | D6UB100 | |
|---|----------------|------|---|--------|--------|--------|--------|--------|--------|---------|------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | IFM=3.0A | | | | | | | | 1.00 |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _R | μA | T _j =25°C | | | | | | | | 5 |
| | | | T _j =125°C | | | | | | | | 100 |
| Typical junction capacitance | C _j | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | | | | | | | | 53 |

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

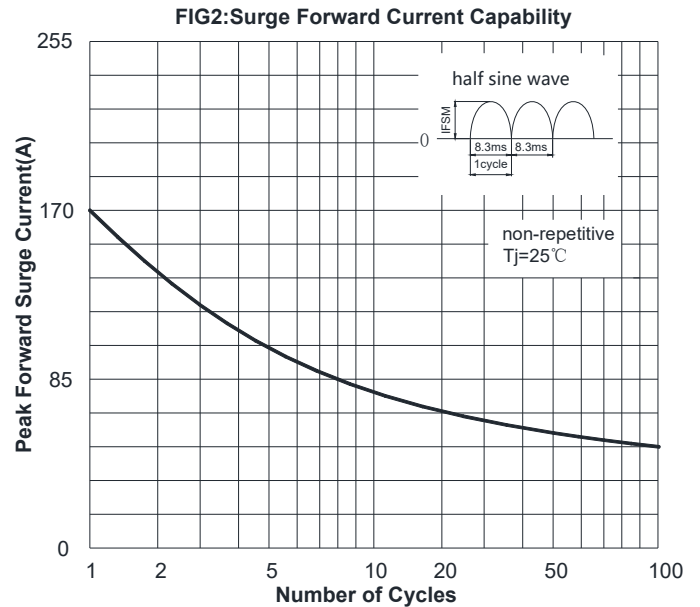
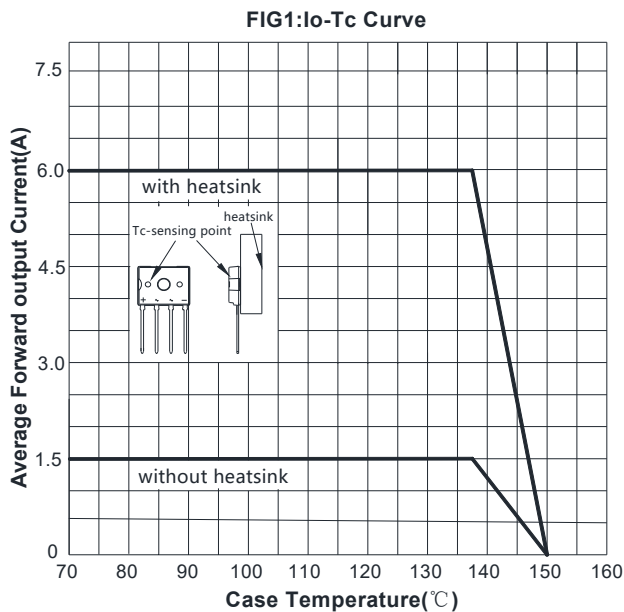
| PARAMETER | | SYMBOL | UNIT | D6UB05 | D6UB10 | D6UB20 | D6UB40 | D6UB60 | D6UB80 | D6UB100 | |
|--------------------|--|-------------------|------|--------|--------|--------|--------|--------|--------|---------|------|
| Thermal resistance | Between junction and ambient, Without heatsink | R _{θJ-A} | °C/W | | | | | | | | 55.0 |
| | Between junction and case, With heatsink | R _{θJ-C} | | | | | | | | | 1.5 |

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

■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|------------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| D6UB05 - D6UB100 | B1 | Approximate 1.269 | 25 | 1500 | 6000 | TUBE |

■ Characteristics (Typical)





D6UB05 THRU D6UB100

FIG3: Typical Forward Voltage

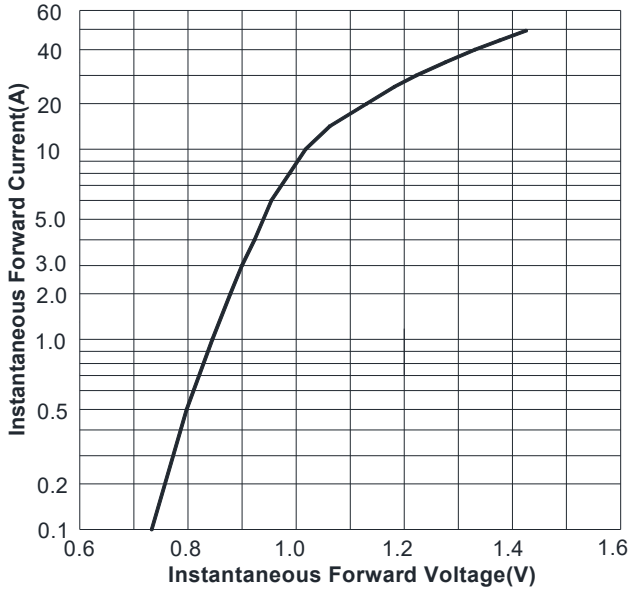
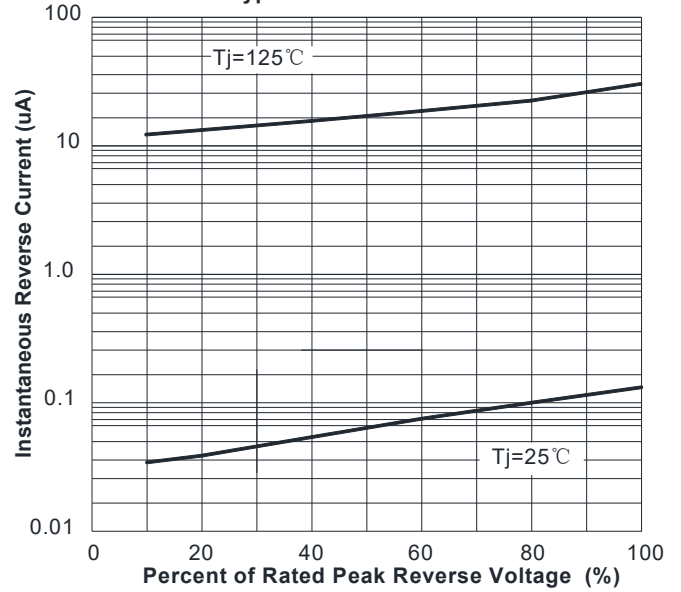
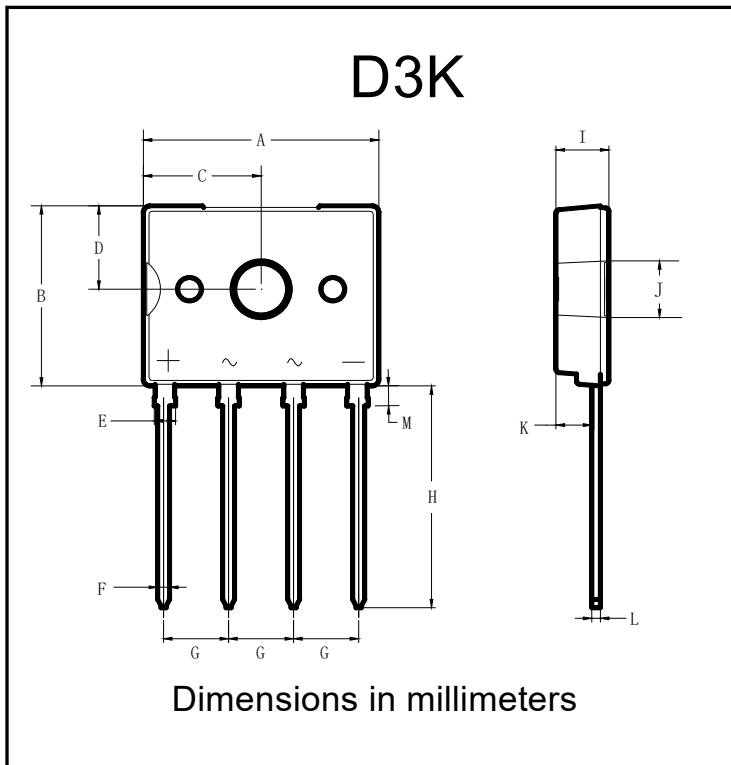


FIG4: Typical Reverse Characteristics



Outline Dimensions



| D3K | | |
|-----|-------|-------|
| Dim | Min | Max |
| A | 13.30 | 14.30 |
| B | 10.30 | 11.30 |
| C | 6.40 | 7.40 |
| D | 4.50 | 5.50 |
| E | 1.05 | 1.45 |
| F | 0.60 | 0.85 |
| G | 3.70 | 3.90 |
| H | 13.10 | 13.50 |
| I | 2.60 | 3.60 |
| J | 3.10 | 3.40 |
| K | 2.00 | 2.20 |
| L | 0.40 | 0.60 |
| M | 0.90 | 1.50 |



D6UB05 THRU D6UB100

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