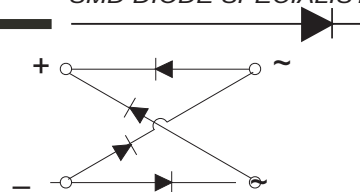


# Low $V_F$ Schottky Bridge Rectifiers

**COMCHIP**  
SMD DIODE SPECIALIST

## CDBHD120L-G Thru 1100L-G

Reverse Voltage: 20 - 100 Volts  
Forward Current: 1.0 Amp



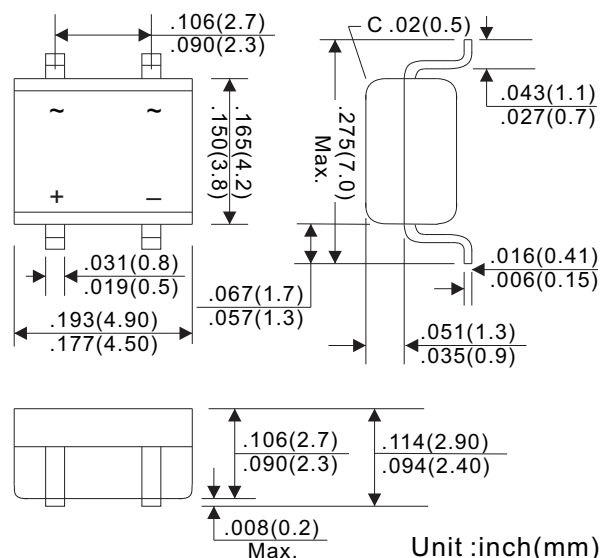
### Features

- Low  $V_f$  Schottky barrier chips in bridge
- Metal-Semiconductor junction with guard ring
- High surge current capability
- Silicon epitaxial planar chips
- For use in low voltage, high efficiency inverters, free wheeling, and polarity protection applications
- Lead-free part, meet RoHS requirements

### Mechanical Data

- Case: Mini-Dip bridge (TO-269AA) plastic molded case
- Epoxy: UL94-V0 rated flame retardant
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: As marked on body
- Mounting Position: Any
- Weight: 0.0078 ounces, 0.22 grams

### Mini-DIP



## MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| <i>CDBHD</i> - Symbols   | 120L                                 | 140L         | 160L  | 180L | 1100L | Units |       |
|--|--------------------------------------|--------------|-------|------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage   | VRRM                                 | 20           | 40    | 60   | 80    | 100   | Volts |
| Maximum RMS Voltage  | VRMS                                 | 14           | 28    | 42   | 56    | 70    | Volts |
| Maximum DC Blocking Voltage  | VDC                                  | 20           | 40    | 60   | 80    | 100   | Volts |
| Maximum Average Forward Rectified Current<br>0.2x0.2" (5.0x5.0mm) copper pad area, see Figure 1        | I <sub>AV</sub>                      | 1.0          |       |      |       |       | Amps  |
| Peak Forward Surge Current<br>8.3mS single half sine-wave superimposed on<br>rated load (JEDEC Method) | I <sub>FSM</sub>                     | 30.0         |       |      |       |       | Amps  |
| Maximum Forward Voltage at 1.0A (Note 1)   | V <sub>F</sub>                       | 0.44         | 0.625 | 0.75 |       | Volts |       |
| Maximum DC Reverse Current<br>at Rated DC Blocking Voltage   | I <sub>R</sub>                       | 0.5<br>20.0  |       |      |       |       | mA    |
| Typical Junction Capacitance (Note 2)  | C <sub>J</sub>                       | 250          |       |      | 125   |       | pF    |
| Typical Thermal Resistance (Note 3)  | R <sub>θJA</sub><br>R <sub>θJL</sub> | 85.0<br>20.0 |       |      |       |       | °C/W  |
| Operating Junction Temperature Range   | T <sub>J</sub>                       | -55 ~ +125   |       |      |       |       | °C    |
| Storage Temperature Range  | T <sub>STG</sub>                     | -55 ~ +150   |       |      |       |       | °C    |

Note 1. Pulse test: 300μS pulse width, 1% duty cycle

2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

3. Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2x0.2"(5.0x5.0mm) copper pad areas.

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Fig. 1 - Forward Current Derating Curve

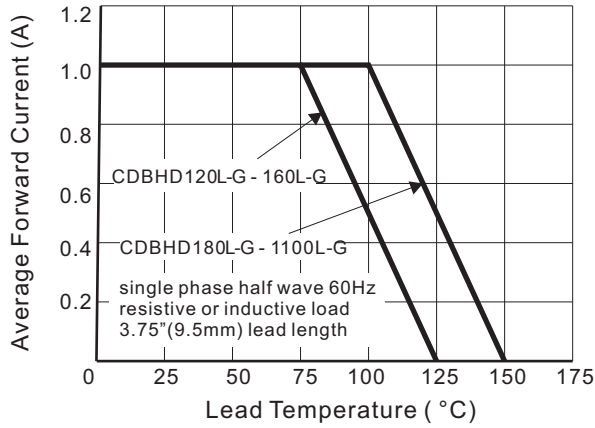


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

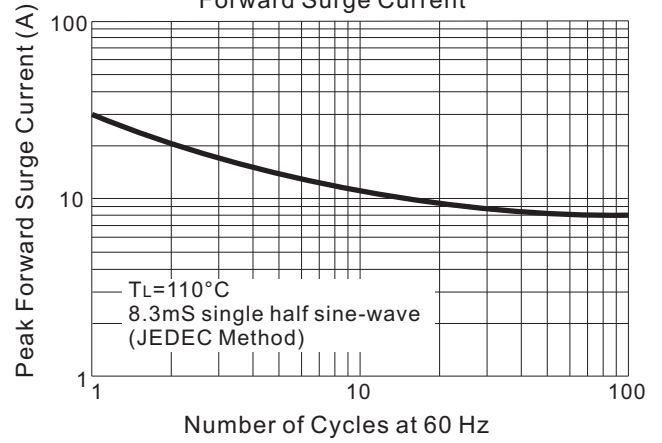


Fig. 3 - Typical Instantaneous Forward Characteristics

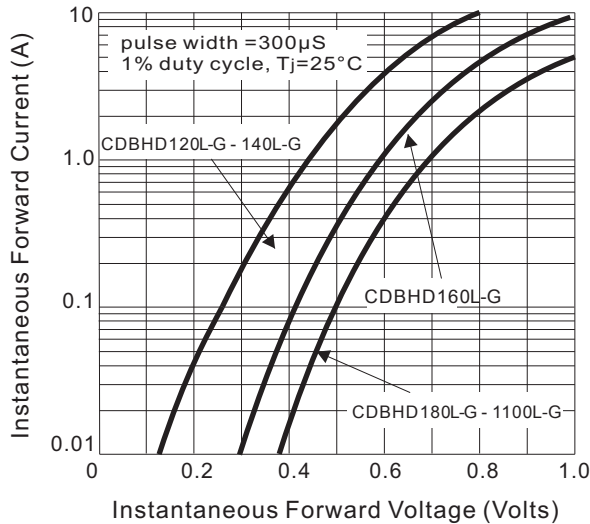


Fig. 4A - Typical Reverse Characteristics

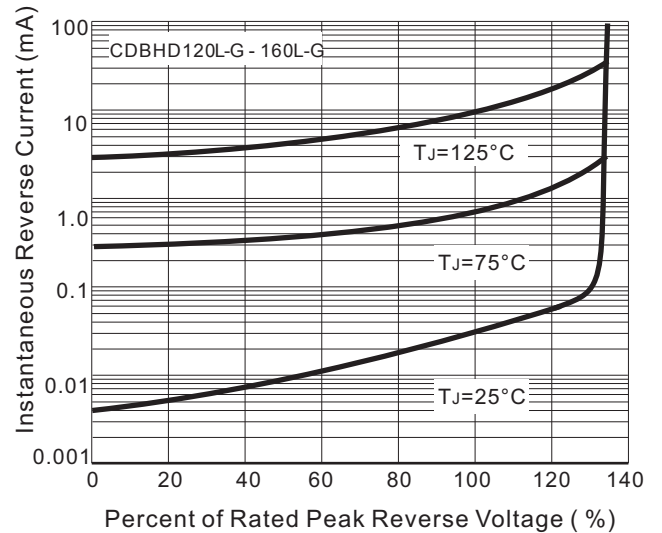


Fig. 5 - Typical Junction Capacitance

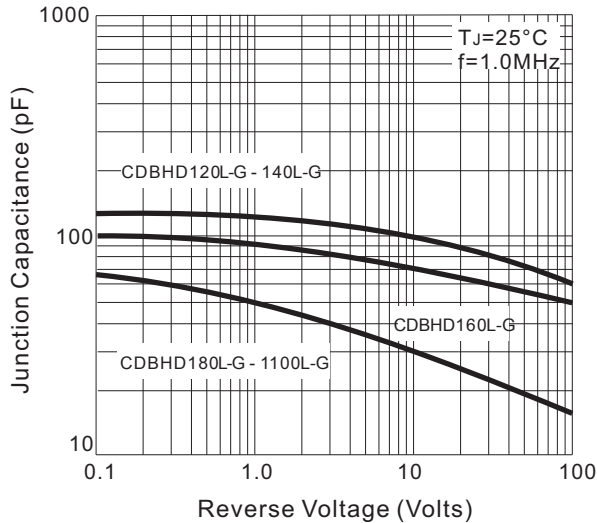


Fig. 4B - Typical Reverse Characteristic

