

## CDBW0520 - CDBW0540

Voltage: 20- 40 Volts  
Current: 0.5 Amp

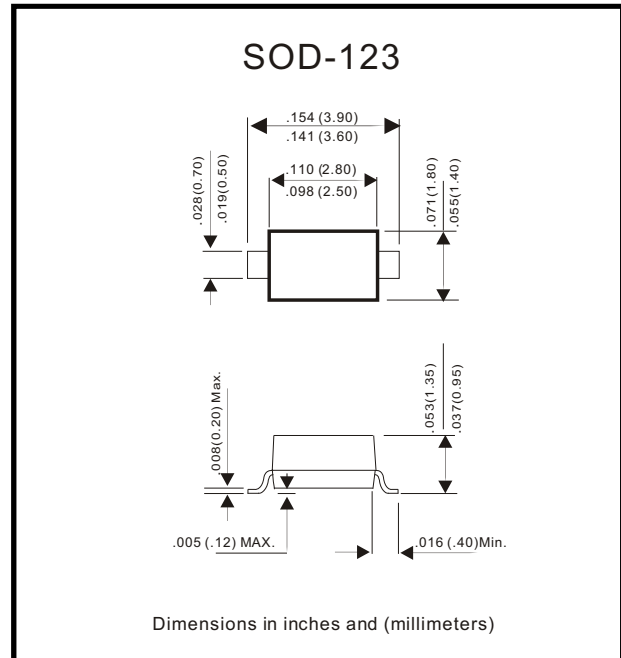


### Feature

- Low turn-on voltage
- Fast switching
- PN junction guard ring for transient and ESD protection

### Mechanical data

- Case: SOD-123, molded plastic
- Terminals: solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band
- Mounting position: Any
- Weight: 0.008 grams



### Maximum Ratings and Electrical Characteristics

| Parameter   | Symbol                               | CDBW0520  | CDBW0530   | CDBW0540  | Unit |
|---|--------------------------------------|---|--|---|------|
| Max.RepetitivePeak Reverse Voltage  | V <sub>RRM</sub>                     | 20  | 30   | 40  | V    |
| Max. DC Blocking Voltage  | V <sub>DC</sub>                      | 14  | 21   | 28  | V    |
| Max. RMS Voltage  | V <sub>RMS</sub>                     | 20  | 30   | 40  | V    |
| Peak Surge Forward Current<br>8.3ms single halfsine-wave<br>Sine-wave superimposed on<br>Rate load (JEDEC ) | I <sub>FSM</sub>                     | 5.5   |  |   | A    |
| Max. AverageForward Current   | I <sub>o</sub>                       | 0.5   |  |   | A    |
| Max. Forward Current at 0.1 A<br>0.5 A  | V <sub>F</sub>                       | 0.3<br>0.385  | 0.375<br>0.430   | 0.51  | V    |
| Max. Reverse Current  | I <sub>R</sub>                       | 0.075 @ V <sub>R</sub> =10V<br>0.25 @ V <sub>R</sub> =20V | 0.02 @ V <sub>R</sub> =15V<br>0.13 @ V <sub>R</sub> =30V | 0.01@ V <sub>R</sub> =20V<br>0.02 @ V <sub>R</sub> =40V | mA   |
| Max. Thermal Resistance   | R <sub>θJA</sub><br>R <sub>θJL</sub> | 206<br>150  |  |   | °C/W |
| Operating junction temperature  | T <sub>j</sub>                       | -55 to +125   |  |   | °C   |
| Storage temperature   | T <sub>STG</sub>                     | -55 to +125   |  |   | °C   |

Note 1: Thermal resistance from junction to ambient and junction to to lead P.C.B. Mounted on 0.2 x 0.2 copper pad areas

## RATING AND CHARACTERISTIC CURVES (CDBW0520-0540)

Fig. 1 - Reverse Characteristics

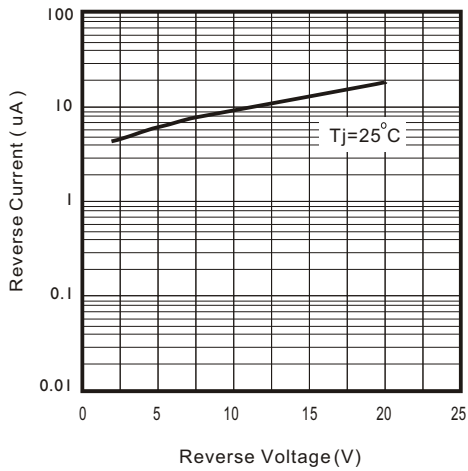


Fig. 2 - Reverse Characteristics

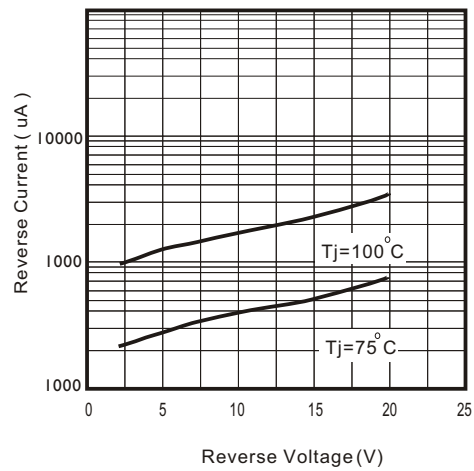


Fig. 3 - Forward Characteristics

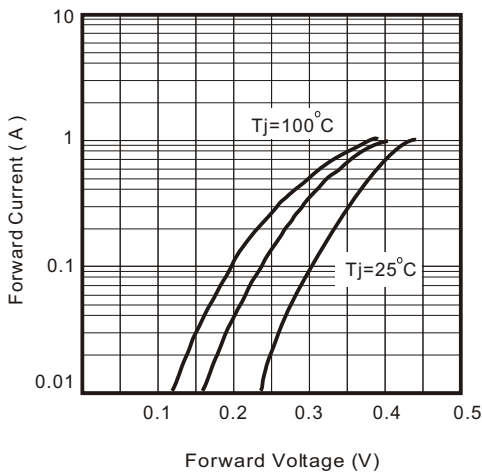


Fig. 4 - Current Derating Curve

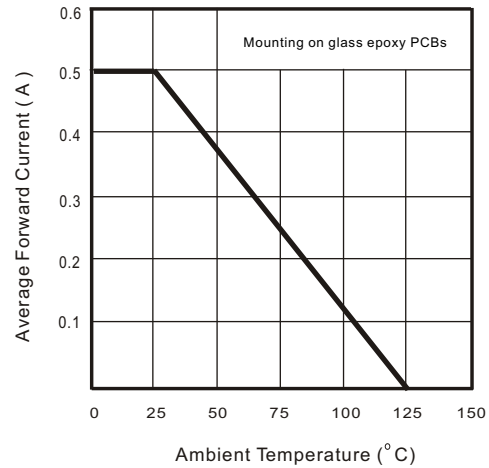


Fig. 3 - Capacitance Between Terminals characteristics

