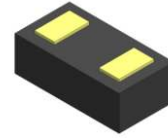


CDBWL0240L-HF

Ultra small SMD package

$I_F = 200 \text{ mA}$
 $V_R = 40 \text{ V}$
RoHS Device
Halogen Free

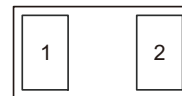


Case 01005A

Features

- Low forward voltage.
- Designed for mounting on small surface.
- Extremely thin package.
- Low stored charge.
- Majority carrier conduction.

Outline



Circuit Diagram



Mechanical data

- Case: 01005 package, molded plastic.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

| Part number | Package | Reel | Reel size | Marking code |
|---------------|---------|--------|-----------|--------------|
| CDBWL0240L-HF | 01005A | 10,000 | 7 inch | IO |

Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter | Conditions | Symbol | Value | Unit |
|----------------------------|----------------------------------------------------------------------|-----------|-------------|------------------|
| Forward current | | I_F | 200 | mA |
| Reverse voltage | | V_R | 40 | V |
| Peak forward surge current | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | 2 | A |
| Junction temperature range | | T_J | -55 to +125 | $^\circ\text{C}$ |
| Storage temperature range | | T_{STG} | -55 to +150 | $^\circ\text{C}$ |

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|----------------------|---------------------------------------------------------------------|--------|-----|-------------------|-------------------|---------------|
| Forward voltage | $I_F = 10\text{mA}$ $I_F = 100\text{mA}$ $I_F = 200\text{mA}$ | V_F | | 260 385 480 | 300 460 540 | mV |
| Reverse current | $V_R = 10\text{V}$ $V_R = 40\text{V}$ | I_R | | 1.5 6.0 | 7 30 | μA |
| Junction capacitance | $V_R = 5\text{V}$, $f = 1\text{MHz}$ | C_J | | 6 | | pF |

Typical Rating and Characteristic Curves (CDBWL0240L-HF)

Fig.1 - Forward Characteristics

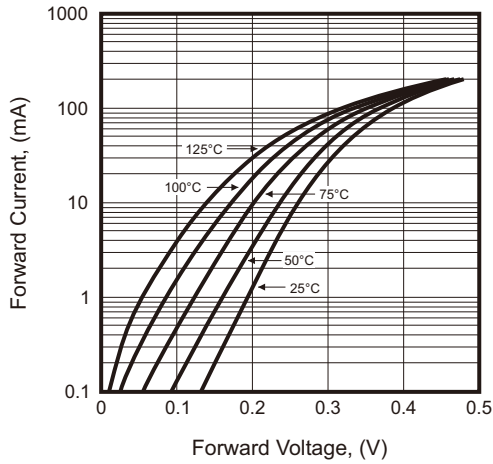


Fig.2 - Reverse Characteristics

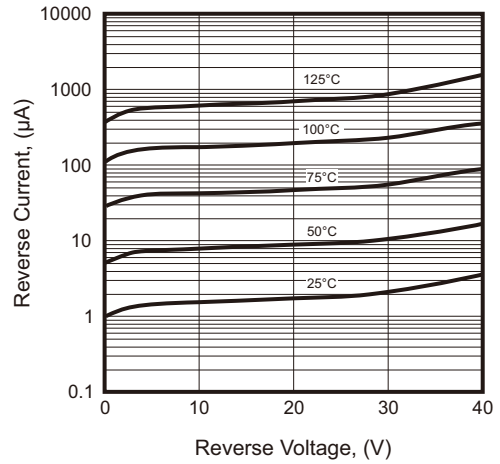


Fig.3 - Capacitance Between Terminals Characteristics

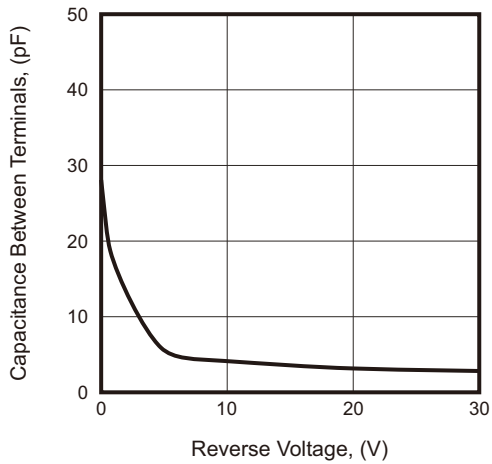
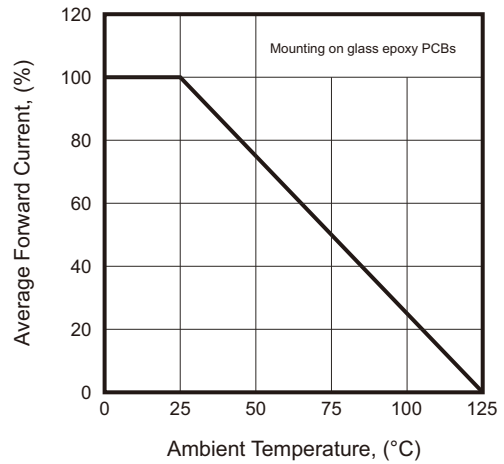
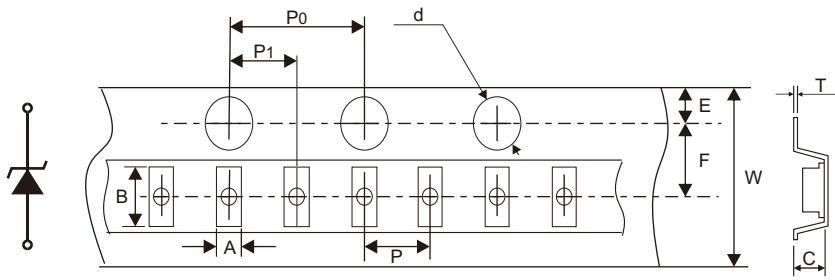


Fig.4 - Current Derating Curves



Taping Specification

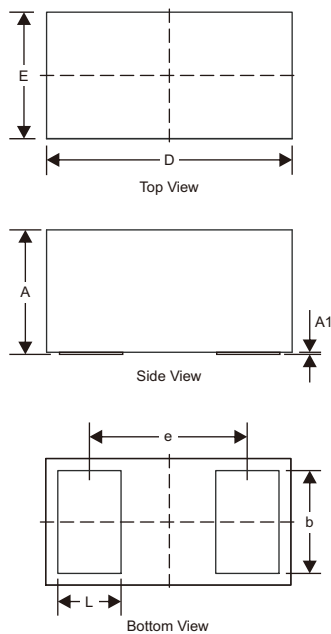


| SIZE | 01005 | |
|------|-----------------|--|
| | (mm) | |
| A | 0.27±0.02 | |
| B | 0.49±0.02 | |
| C | 0.215±0.02 | |
| P | 2.00±0.05 | |
| P0 | 4.00±0.10 | |
| P1 | 2.00±0.05 | |
| d | 1.50±0.10 | |
| E | 1.75±0.10 | |
| F | 3.50±0.05 | |
| W | 8.00+0.30/-0.10 | |
| T | 0.20±0.05 | |

Package Dimensions

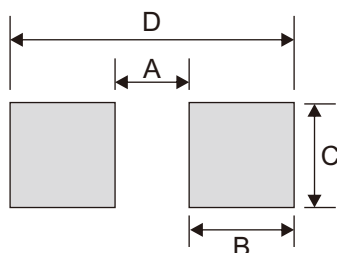
WL, 0.42x0.22, 0.28P

Case 01005A



| Symbol | Millimeters | | |
|--------|-------------|------|------|
| | Min | Nom | Max |
| A | 0.15 | 0.17 | 0.20 |
| A1 | - | - | 0.01 |
| b | 0.14 | 0.16 | 0.18 |
| D | 0.40 | 0.42 | 0.44 |
| E | 0.20 | 0.22 | 0.24 |
| e | - | 0.28 | - |
| L | 0.06 | 0.08 | 0.10 |

Suggested P.C.B. PAD Layout



| Size | 01005 | |
|------|-------|--------|
| | (mm) | (inch) |
| A | 0.12 | 0.005 |
| B | 0.17 | 0.007 |
| C | 0.17 | 0.007 |
| D | 0.46 | 0.018 |