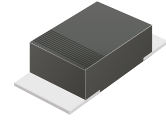


## CDBMT220L-G Thru. CDBMT240L-G

Reverse Voltage: 20 to 40 Volts

Forward Current: 2.0 Amp

RoHS Device

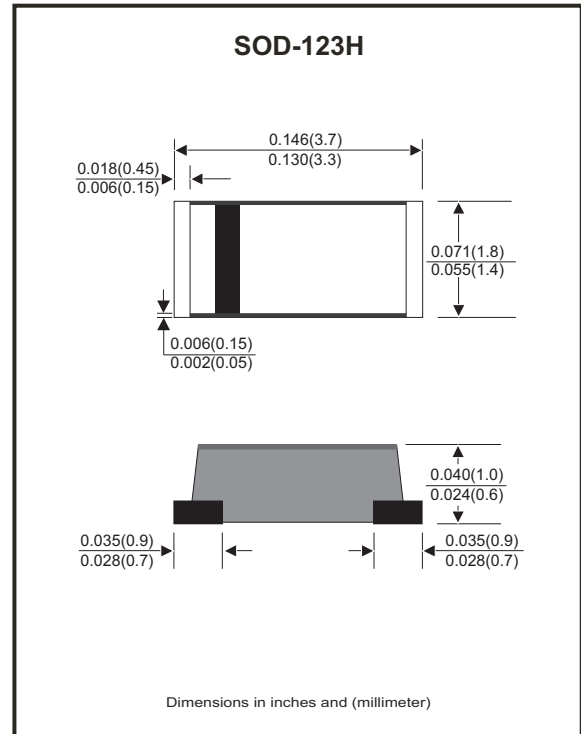


### Features

- Excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guarding for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free part meets environmental standards of MIL-STD-19500/228

### Mechanical data

- Case: Mini SMA/SOD-123H , molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Approx. weight: 0.011 grams



### Maximum Ratings and Electrical Characteristics (at T<sub>A</sub>=25°C unless otherwise noted)

| Parameter   | Symbol           | CDBMT220L-G | CDBMT230L-G | CDBMT240L-G | Units |
|---|------------------|-------------|-------------|-------------|-------|
| Max. Repetitive Peak Reverse Voltage  | V <sub>RRM</sub> | 20          | 30          | 40          | V     |
| Continuous Reverse Voltage  | V <sub>R</sub>   | 20          | 30          | 40          | V     |
| Max. RMS Voltage  | V <sub>RMS</sub> | 14          | 21          | 28          | V     |
| Max. Forward Surge Current<br>8.3ms single half sine-wave superimposed<br>on rate load (JEDEC method) | I <sub>FSM</sub> | 50          |             |             | A     |
| Max. Forward Rectified Current (Fig.2)  | I <sub>o</sub>   | 2.0         |             |             | A     |
| Max. Forward Voltage @I <sub>F</sub> =2.0A  | V <sub>F</sub>   | 0.38        | 0.40        | 0.40        | V     |
| Max. Reverse Current @T <sub>A</sub> =25°C  | I <sub>R</sub>   | 1.0         |             |             | mA    |
| Typ. Thermal Resistance<br>Junction to Ambient  | R <sub>θJA</sub> | 70          |             |             | °C/W  |
| Typ. Diode Junction Capacitance<br>f=1MHz and applied 4V DC reverse voltage                           | C <sub>J</sub>   | 160         |             |             | pF    |
| Storage Temperature   | T <sub>STG</sub> | -65 to +175 |             |             | °C    |
| Operating Temperature   | T <sub>J</sub>   | -55 to +100 |             |             | °C    |

Company reserves the right to improve product design , functions and reliability without notice.

## RATING AND CHARACTERISTIC CURVES (CDBMT220L-G thru CDBMT240L-G)

Fig.1 - Typical Forward Characteristics

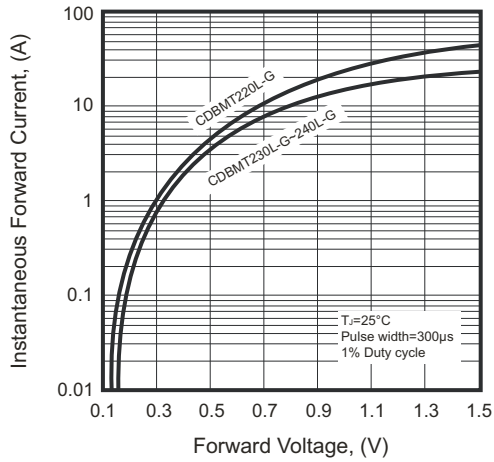


Fig.2 - Typical Forward Current Derating Curve

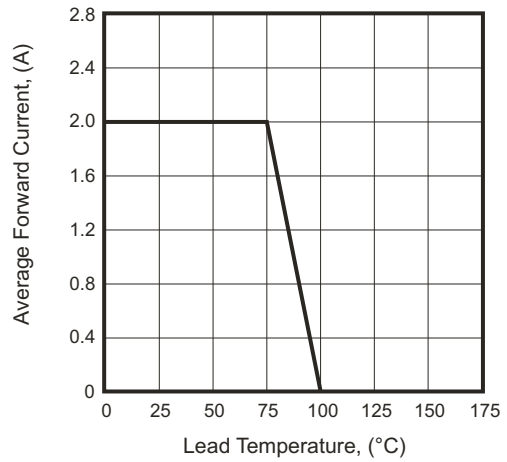


Fig.3 - Typical Reverse Characteristics

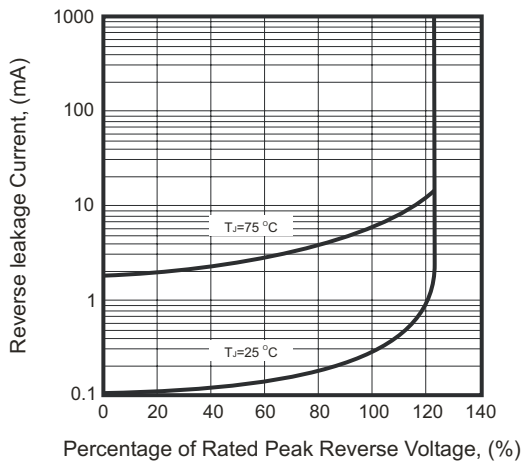


Fig.4 - Maximum Non-repetitive Forward Surge Current

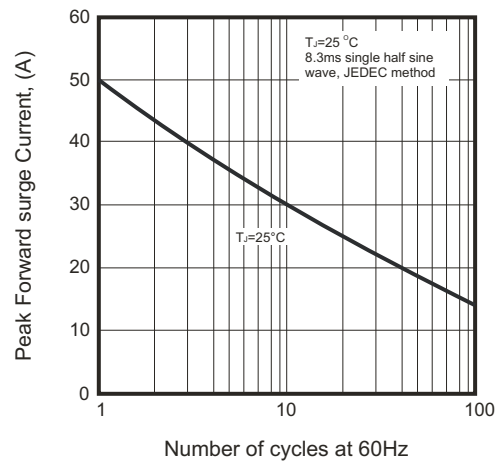
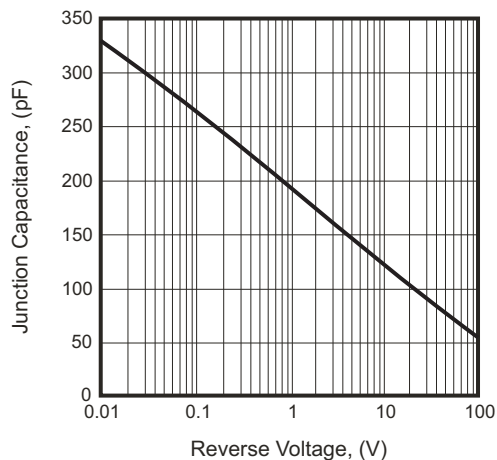
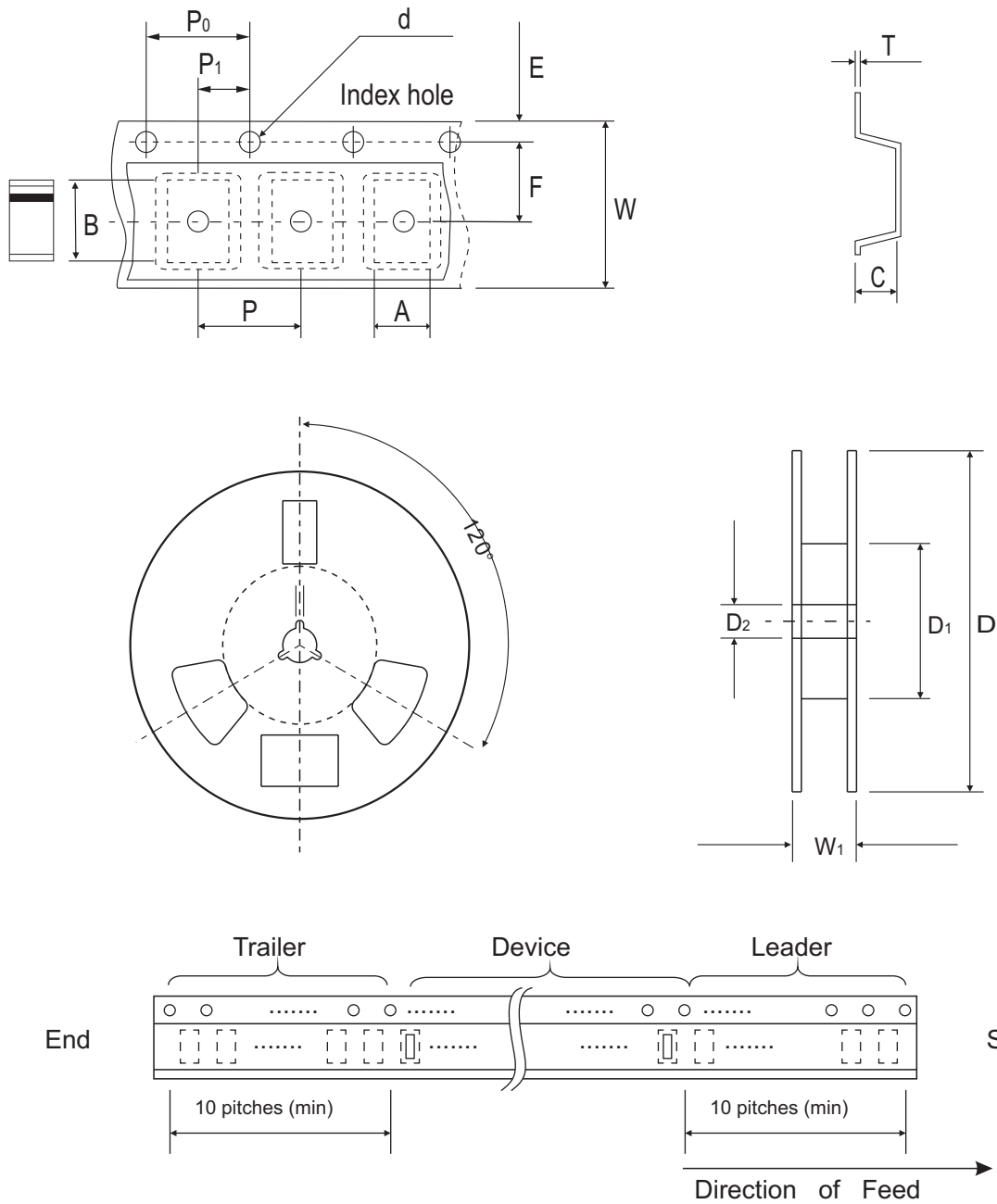


Fig.5 - Typical Junction Capacitance



## Reel Taping Specification



| SOD-123H | SYMBOL | A             | B             | C             | d             | D             | D1          | D2            |
|----------|--------|---------------|---------------|---------------|---------------|---------------|-------------|---------------|
|          | (mm)   | 2.00 ± 0.10   | 3.85 ± 0.10   | 1.10 ± 0.10   | 1.50 ± 0.10   | 178.00 ± 2.00 | 62.00 (min) | 13.00 ± 0.50  |
|          | (inch) | 0.079 ± 0.004 | 0.152 ± 0.004 | 0.043 ± 0.004 | 0.059 ± 0.004 | 7.007 ± 0.079 | 2.441 (min) | 0.512 ± 0.020 |

| SOD-123H | SYMBOL | E             | F             | P             | P0            | P1            | T            | W             | W1            |
|----------|--------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|
|          | (mm)   | 1.75 ± 0.10   | 3.50 ± 0.10   | 4.00 ± 0.10   | 4.00 ± 0.10   | 2.00 ± 0.10   | 0.23 ± 0.10  | 8.00 ± 0.30   | 11.40 ± 1.00  |
|          | (inch) | 0.069 ± 0.004 | 0.138 ± 0.004 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.004 | 0.009 ± 0.04 | 0.315 ± 0.012 | 0.449 ± 0.039 |

## Marking Code

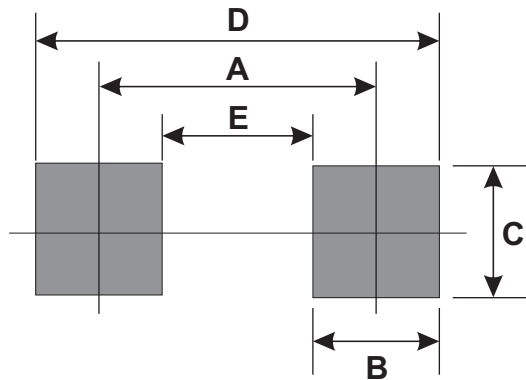
| Part Number | Marking Code |
|-------------|--------------|
| CDBMT220L-G | L22          |
| CDBMT230L-G | L23          |
| CDBMT240L-G | L24          |



XXX= Product type marking code

## Suggested PAD Layout

| SIZE | SOD-123H |        |
|------|----------|--------|
|      | (mm)     | (inch) |
| A    | 3.00     | 0.118  |
| B    | 1.30     | 0.051  |
| C    | 1.80     | 0.071  |
| D    | 4.30     | 0.169  |
| E    | 1.70     | 0.067  |



## Standard Packaging

| Case Type | REEL PACK    |                  |
|-----------|--------------|------------------|
|           | REEL ( pcs ) | Reel Size (inch) |
| SOD-123H  | 3,000        | 7                |