

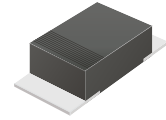
CDBMH220-HF Thru. CDBMH2100-HF

Reverse Voltage: 20 to 100 Volts

Forward Current: 2.0 Amp

RoHS Device

Halogen Free

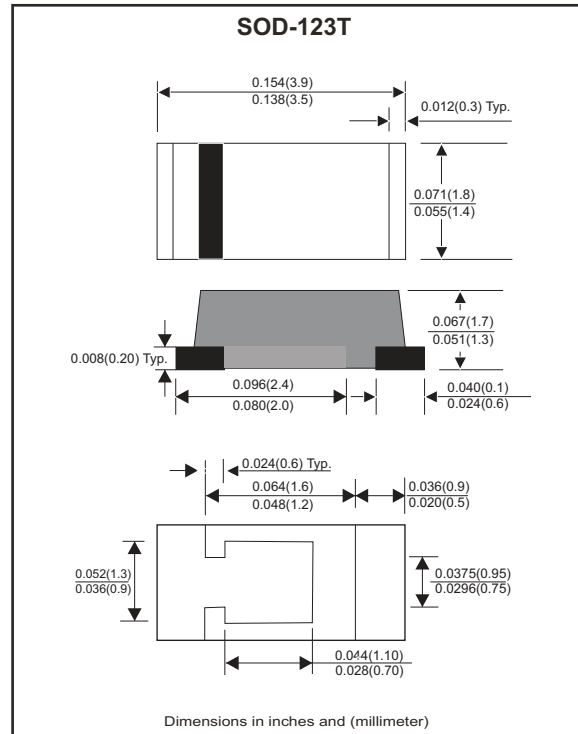


Features

- 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.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Heat sink bottom.
- Lead-free parts meet environmental standards of MIL-STD-19500/228

Mechanical data

- Case: Molded plastic, SOD-123T/Mini SMA.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.018 grams approx.



Electrical Characteristics (at T_A=25°C unless otherwise noted)

| Parameter | Symbol | CDBMH 220-HF | CDBMH 230-HF | CDBMH 240-HF | CDBMH 250-HF | CDBMH 260-HF | CDBMH 280-HF | CDBMH 2100-HF | Unit |
|---|--|--------------|--------------|--------------|--------------|--------------|--------------|---------------|------|
| Max. Repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| Max. Continuous reverse voltage | V _R | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| Max. RMS voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | V |
| Max. Forward rectified current | I _O | 2.0 | | | | | | | A |
| Max. Forward voltage at I _F =2.0A | V _F | 0.50 | | | 0.70 | | 0.85 | | V |
| Max. Forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 50 | | | | | | | A |
| Max.Reverse current | V _R =V _{RRM} T _J =25°C | 0.2 | | | | | | | mA |
| | V _R =V _{RRM} T _J =100°C | 10 | | | | | | | |
| Typ. Thermal resistance | R _{θJC} | 35 | | | | | | | °C/W |
| Typ. Diode Junction capacitance (Note 1) | C _J | 160 | | | | | | | pF |
| Operating temperature | T _J | -55 to +125 | | | -55 to +150 | | | | °C |
| Storage temperature range | T _{STG} | -65 to +175 | | | | | | | °C |

Note : 1. F=1MHz and applied 4V DC reverse voltage

Rating and Characteristic Curves (CDBMH220-HF Thru. CDBMH2100-HF)

Fig.1- Typical Current Derating Curve

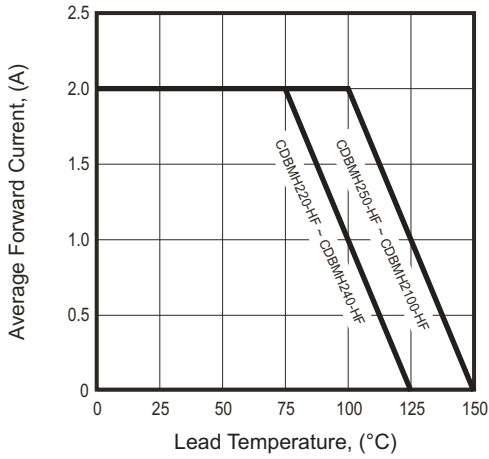


Fig.2- Typical Forward Characteristics

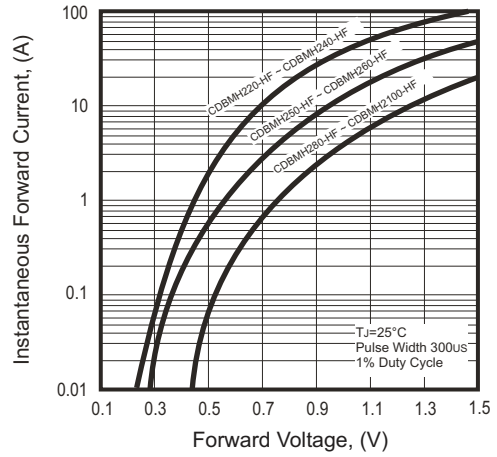


Fig.3- Maximum Non-repetitive Forward Surge Current

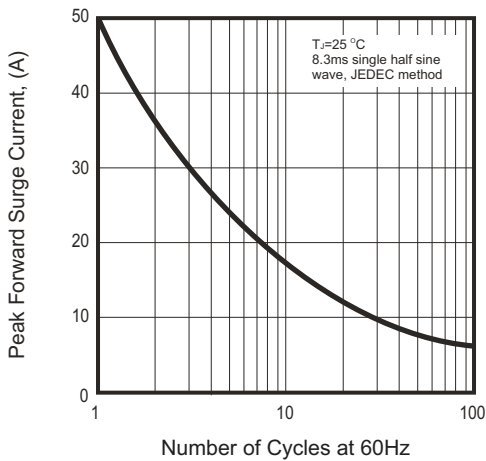


Fig.4- Typical Junction Capacitance

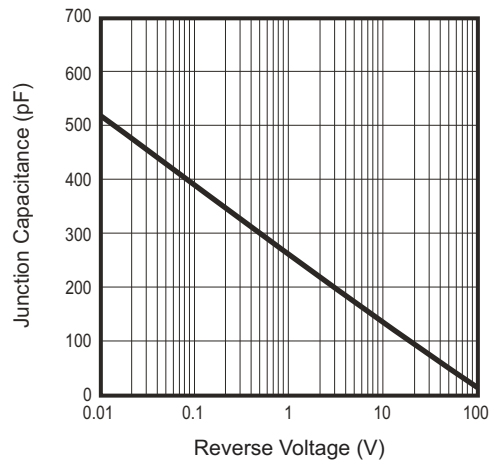
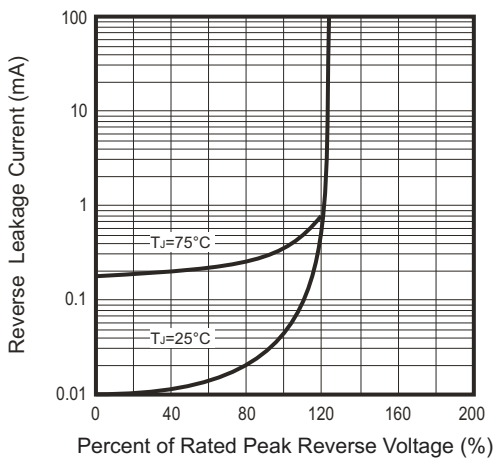
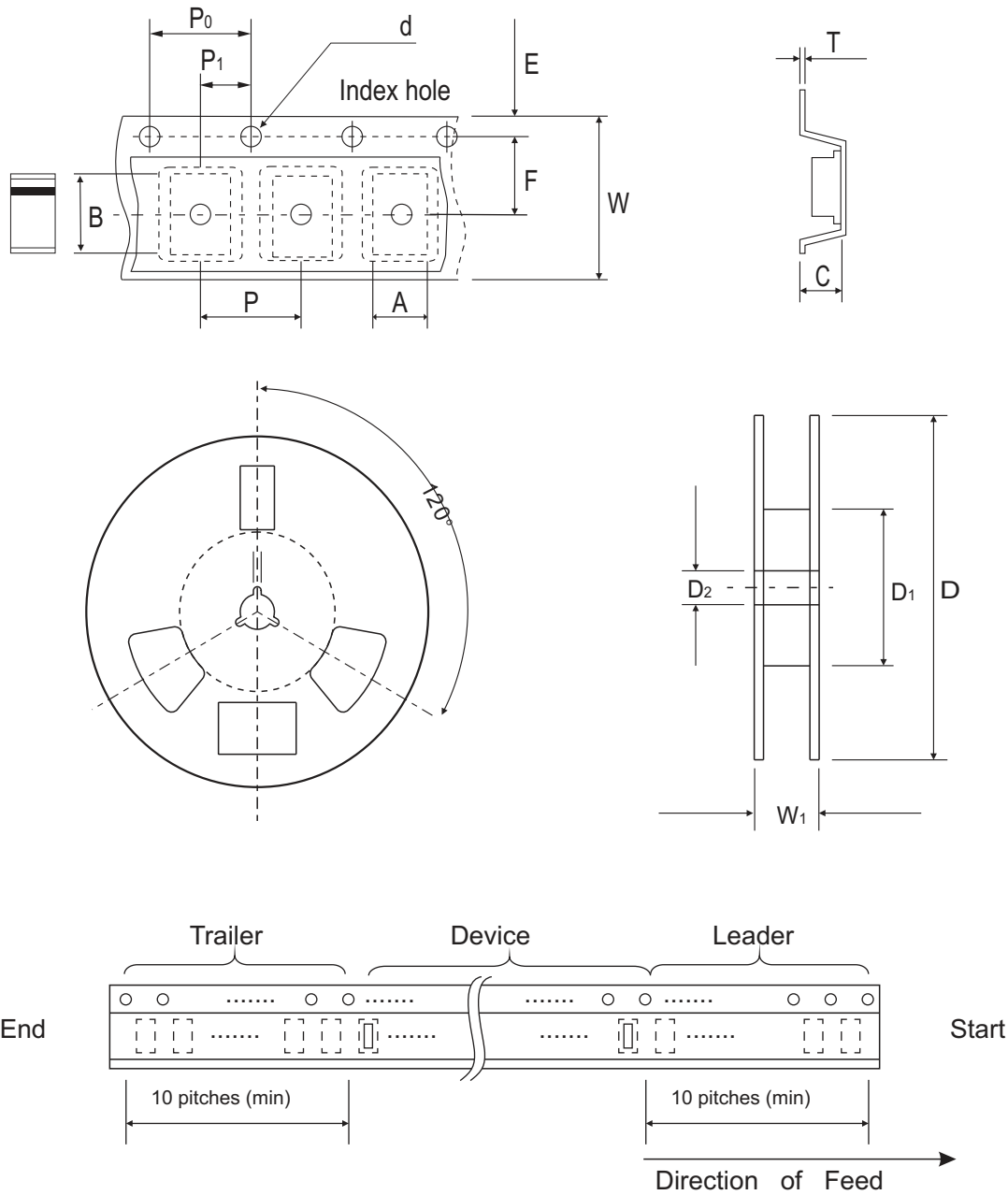


Fig.5- Reverse Characteristics



Reel Taping Specification



| Mini-SMA / SOD-123T | SYMBOL | A | B | C | d | D | D1 | D2 |
|---------------------|--------|---------------|---------------|---------------|---------------|---------------|-------------|---------------|
| | (mm) | 1.90 ± 0.10 | 3.90 ± 0.10 | 1.68 ± 0.10 | 1.50 ± 0.10 | 178.00 ± 2.00 | 62.00 (min) | 13.00 ± 0.50 |
| | (inch) | 0.075 ± 0.004 | 0.154 ± 0.004 | 0.066 ± 0.004 | 0.059 ± 0.004 | 7.007 ± 0.079 | 2.441 (min) | 0.512 ± 0.020 |

| Mini-SMA / SOD-123T | 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 |

Pinning information

| Pin | Simplified outline | Symbol |
|------------------------------|--------------------|--------|
| PIN 1 Cathode PIN 2 Anode | | |

Marking Code

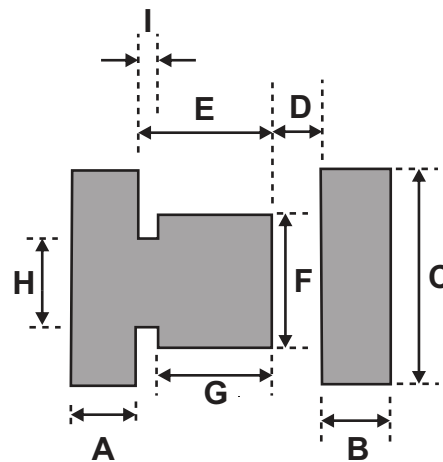
| Part Number | Marking Code |
|--------------|--------------|
| CDBMH220-HF | 22 |
| CDBMH230-HF | 23 |
| CDBMH240-HF | 24 |
| CDBMH250-HF | 25 |
| CDBMH260-HF | 26 |
| CDBMH280-HF | 28 |
| CDBMH2100-HF | 20 |



xx = Product type marking code

Suggested PAD Layout

| SIZE | Mini-SMA/SOD-123T | |
|------|-------------------|--------|
| | (mm) | (inch) |
| A | 1.00 | 0.040 |
| B | 1.00 | 0.040 |
| C | 1.70 | 0.067 |
| D | 0.50 | 0.020 |
| E | 1.50 | 0.060 |
| F | 1.10 | 0.044 |
| G | 0.90 | 0.036 |
| H | 0.85 | 0.034 |
| I | 0.60 | 0.024 |



Standard Packaging

| Case Type | REEL PACK | |
|-----------|--------------|------------------|
| | REEL (pcs) | Reel Size (inch) |
| SOD-123T | 2,500 | 7 |