

CDBUR0240

$I_o = 200 \text{ mA}$
 $V_R = 40 \text{ Volts}$
 RoHS Device



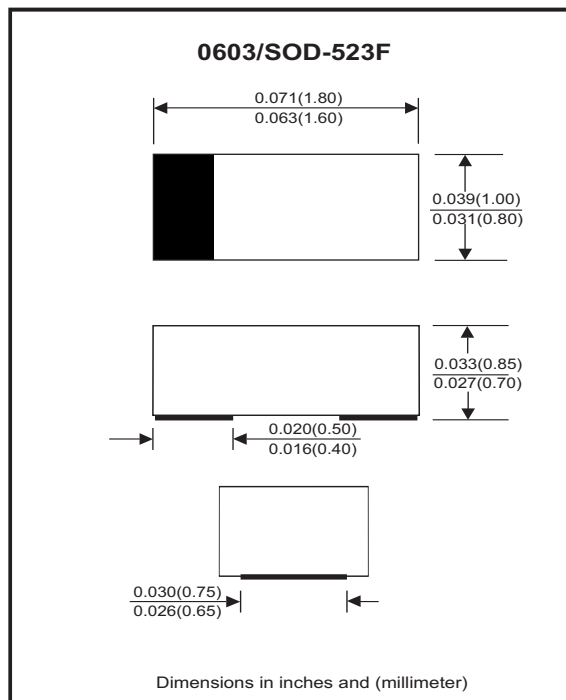
Features

- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Majority carrier conduction.

Mechanical data

- Case: 0603/SOD-523F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight: 0.003 grams (approx.).

Circuit Diagram



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

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|---------------------------------|---|-----------|-----|-----|------|------------------|
| Repetitive peak reverse voltage | | V_{RRM} | | | 45 | V |
| Reverse voltage | | V_R | | | 40 | V |
| Average forward current | | I_o | | | 200 | mA |
| Forward current, surge peak | 8.3 ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | | 3 | | A |
| Power Dissipation | | P_D | | | 150 | mW |
| Junction temperature | | T_j | | | +125 | $^\circ\text{C}$ |
| Storage temperature | | T_{STG} | -40 | | +125 | $^\circ\text{C}$ |

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

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|-------------------------------|--|--------|-----|------|------|---------------|
| Forward voltage | $I_F = 200 \text{ mA DC}$ | V_F | | 0.45 | 0.55 | V |
| Reverse current | $V_R = 30\text{V}$ | I_R | | 1 | 10 | μA |
| Capacitance between terminals | $F = 1 \text{ MHz}$ and 10 VDC reverse voltage | C_T | | 9 | | pF |

RATING AND CHARACTERISTIC CURVES (CDBUR0240)

Fig. 1 - Forward characteristics

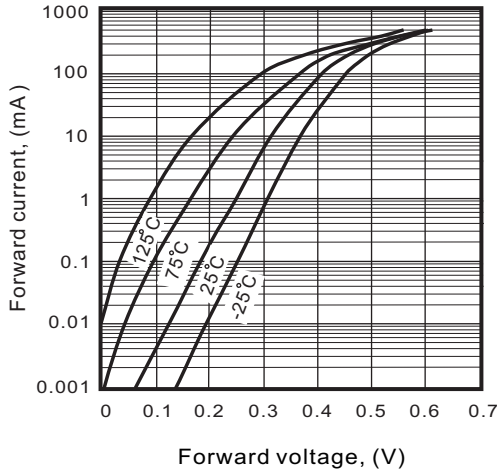


Fig. 2 - Reverse characteristics

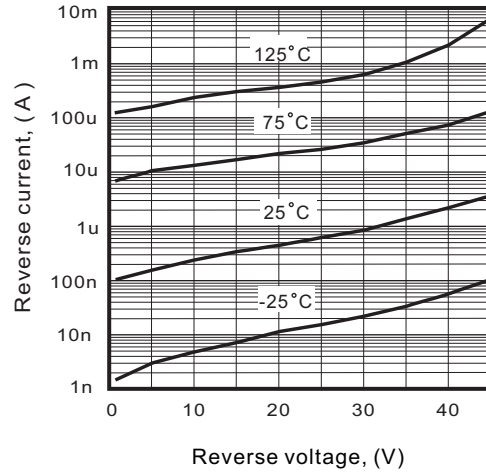


Fig. 3 - Capacitance between terminals characteristics

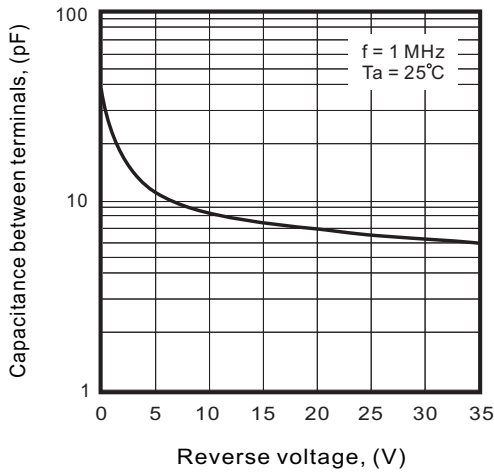
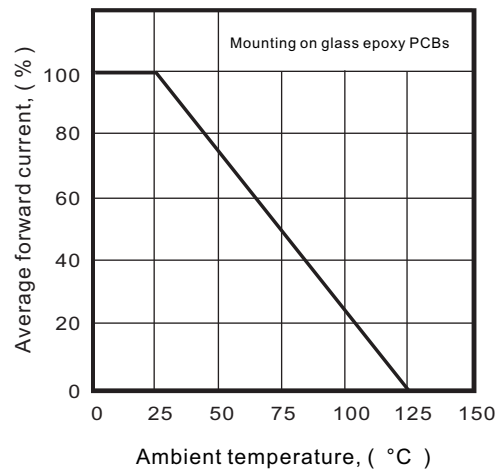
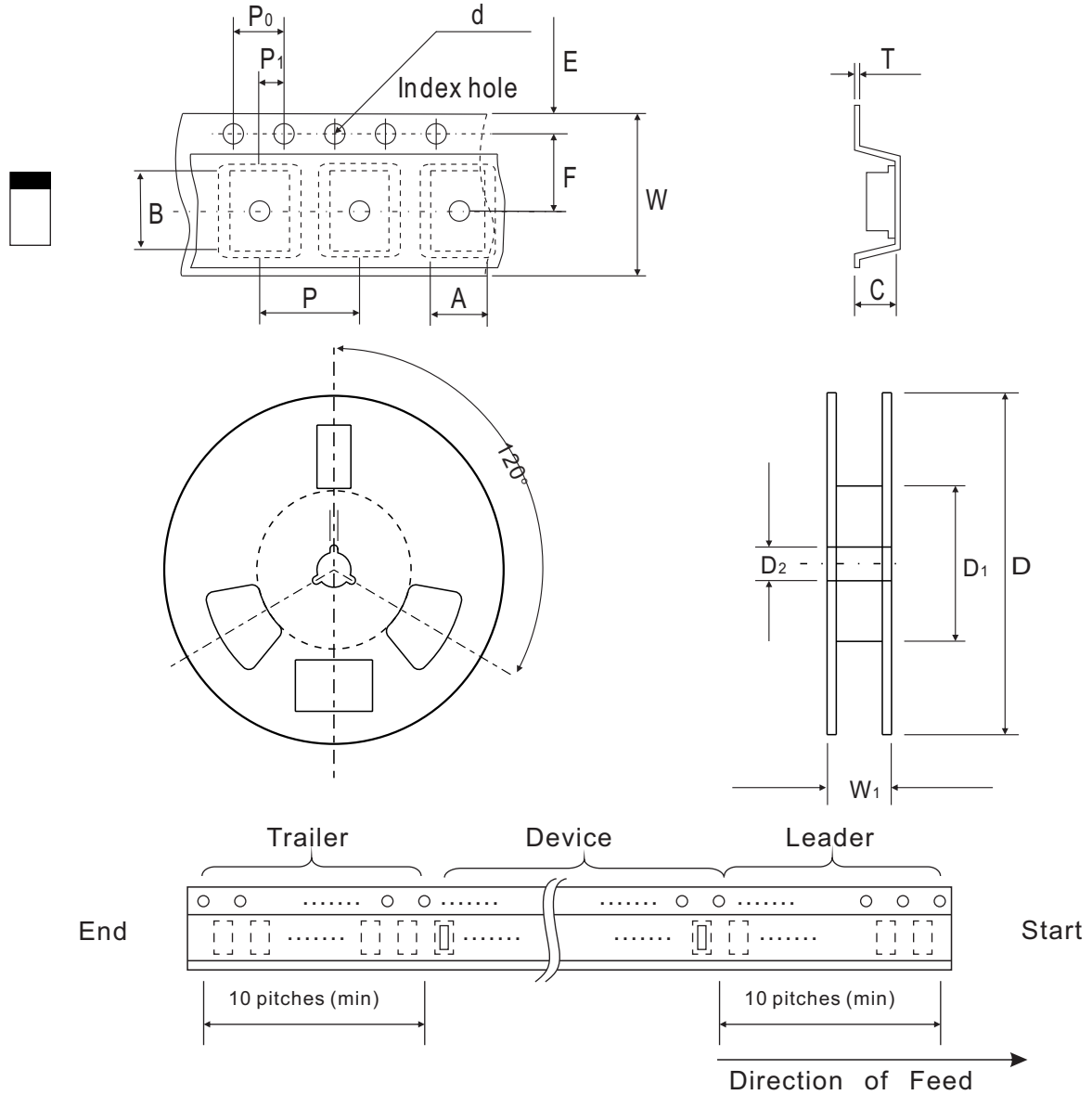


Fig. 4 - Current derating curve



Reel Taping Specification



| 0603 (SOD-523F) | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|--------------------|--------|---------------|---------------|---------------|---------------|--------------|----------------|----------------|
| | (mm) | 1.00 ± 0.10 | 1.85 ± 0.10 | 1.00 ± 0.10 | 1.55 ± 0.05 | 178 ± 1 | 60.0 MIN. | 13.0 ± 0.20 |
| | (inch) | 0.039 ± 0.004 | 0.073 ± 0.004 | 0.039 ± 0.004 | 0.061 ± 0.002 | 7.008 ± 0.04 | 2.362 MIN. | 0.512 ± 0.008 |

| 0603 (SOD-523F) | SYMBOL | E | F | P | P ₀ | P ₁ | T | W | W ₁ |
|--------------------|--------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | (mm) | 1.75 ± 0.10 | 3.50 ± 0.05 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 | 0.23 ± 0.05 | 8.00 ± 0.20 | 13.5 MAX. |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.004 | 0.009 ± 0.002 | 0.315 ± 0.008 | 0.531 MAX. |

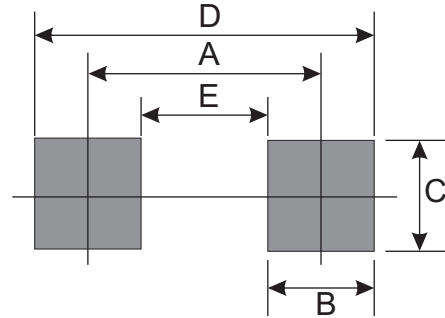
Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| CDBUR0240 | B7 |



Suggested PAD Layout

| SIZE | 0603/SOD-523F | |
|------|---------------|--------|
| | (mm) | (inch) |
| A | 1.25 | 0.049 |
| B | 0.60 | 0.024 |
| C | 1.00 | 0.039 |
| D | 1.85 | 0.073 |
| E | 0.65 | 0.026 |



Standard Packaging

| Case Type | Qty per Reel | Reel Size |
|---------------|--------------|-----------|
| | (Pcs) | (inch) |
| 0603/SOD-523F | 4,000 | 7 |

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