

CDSUR400B-HF

RoHS Device
Halogen Free

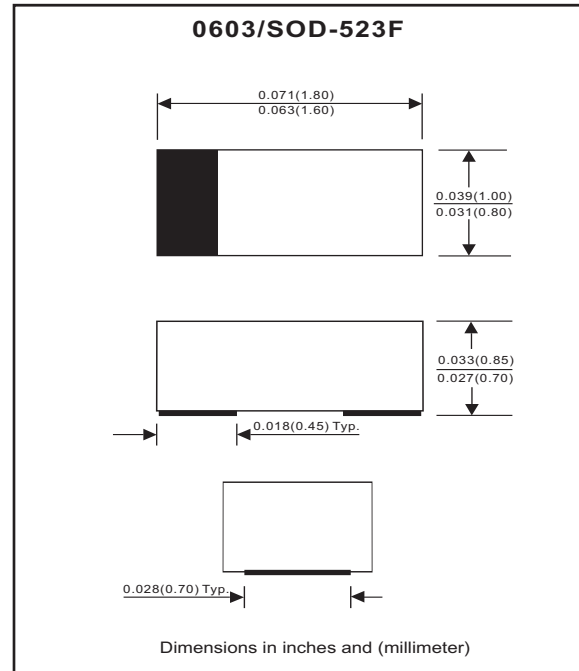


Features

- High Speed.
- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Low leakage current.
- High mounting capability, strong surge withstand, high reliability.

Mechanical data

- Case: 0603/SOD-523F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Marking Code: Cathode band & S4
- Mounting position: Any
- Weight: 0.003 gram(approx.).



Maximum Rating (at TA=25°C unless otherwise noted)

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|---------------------------------|--|------------------|-----|------|------|------|
| Repetitive peak reverse voltage | | V _{RRM} | | | 90 | V |
| Reverse voltage | | V _R | | | 80 | V |
| Average forward current | | I _O | | | 100 | mA |
| Forward current, surge peak | 8.3 ms single half sine-wave superimposed on rate load (JEDEC method) | I _{FSM} | | 1000 | | mA |
| Repetitive peak forward current | | I _{FRM} | | | 225 | mA |
| Power Dissipation | | P _D | | | 150 | mW |
| Storage temperature | | T _{STG} | -55 | | +125 | °C |
| Junction temperature | | T _j | | | +125 | °C |

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

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|-------------------------------|--|-----------------|-----|-----|-----|------|
| Forward voltage | I _F = 100 mA DC | V _F | | | 1.0 | V |
| Reverse current | V _R = 80 V | I _R | | | 0.1 | uA |
| Capacitance between terminals | f = 1 MHz, and 0.5VDC reverse voltage | C _T | | | 3 | pF |
| Reverse recovery time | V _R = 6V , I _F = 10 mA, R _L = 50 ohms | T _{rr} | | | 4 | nS |

RATING AND CHARACTERISTIC CURVES (CDSUR400B-HF)

Fig. 1 - Forward characteristics

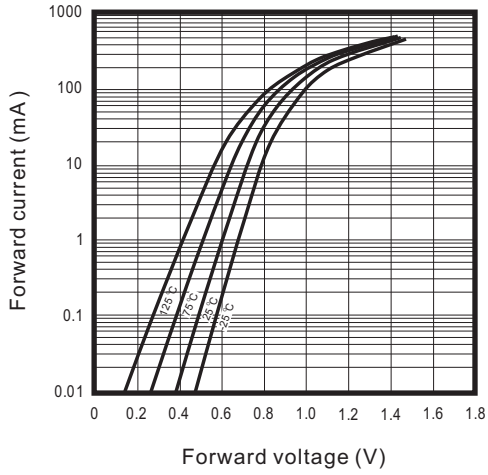


Fig. 2 - Reverse characteristics

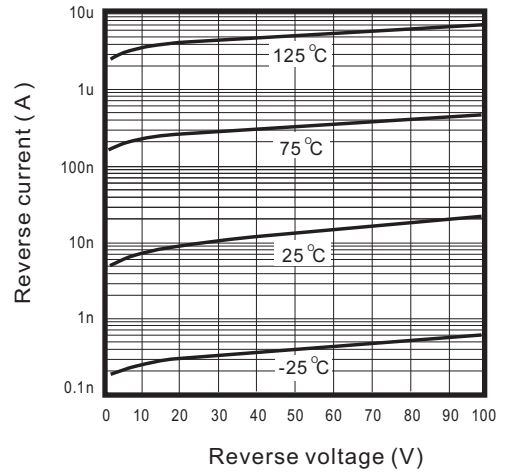


Fig. 3 - Capacitance between terminals characteristics

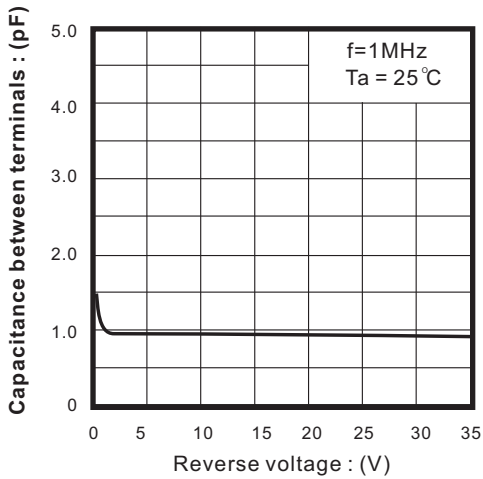
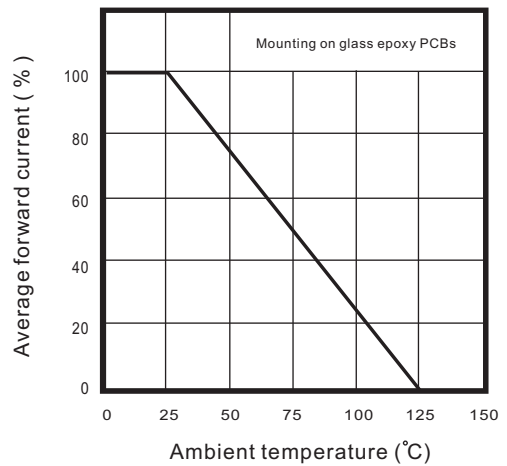
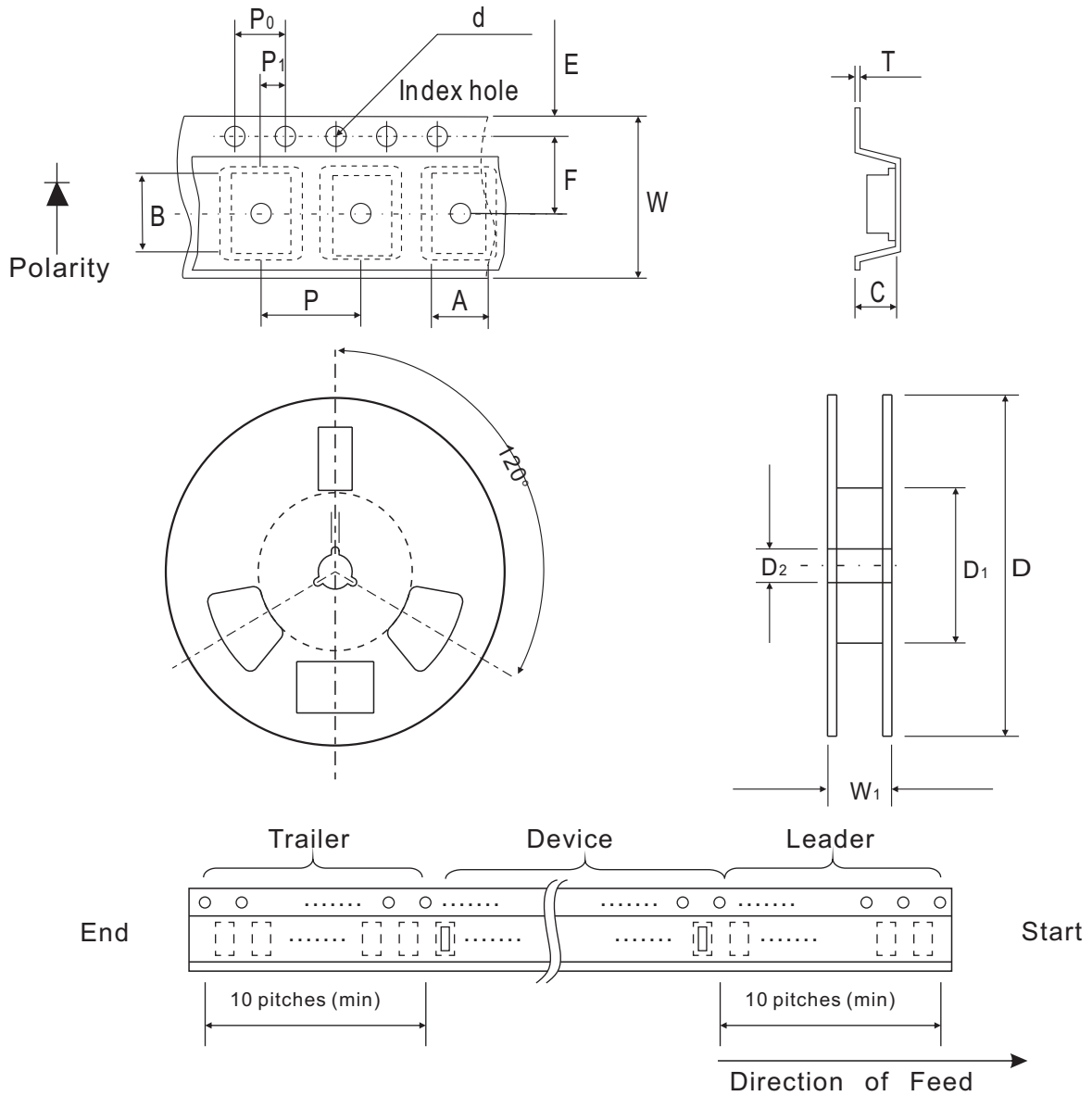


Fig. 4 - Current derating curve



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

| Park Number | Marking Code |
|--------------|--------------|
| CDSUR400B-HF | S4 |



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 Package

| Case Type | Qty per Reel | Reel Size |
|---------------|--------------|-----------|
| | (Pcs) | (inch) |
| 0603/SOD-523F | 4000 | 7 |