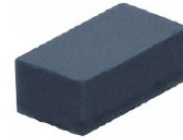


CPDURT5V0C-HF

RoHS Device
Halogen Free

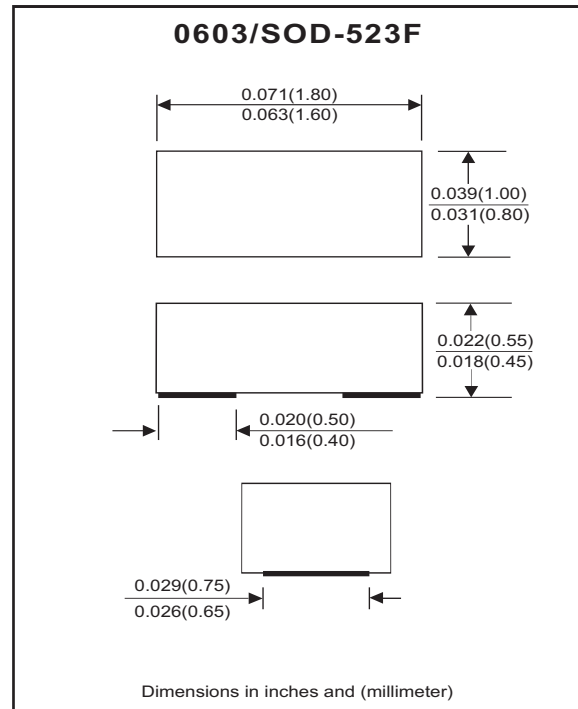


Features

- Bi-directional ESD protection.
- Surface mount package.
- Extremely thin / leadless package.
- Low profile package is 30% thinner than standards 0603
- Operating voltage: 5V.

Mechanical data

- Case: 0603/SOD-523F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750,method 2026.
- Marking code: E05
- Mounting Position: Any
- Weight: 0.0019 grams(approx).



Circuit Diagram



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

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|-----------------------------|----------------------------------|------------------|-----|-----|-----|------|
| Diode breakdown voltage | IR = 1mA | V _{BD} | 6.1 | 7.0 | | V |
| Leakage current | VR = 5V | I _L | | 0.1 | 2.0 | uA |
| Junction capacitance | VR = 0V, f = 1MHz | C _T | | 25 | 30 | pF |
| ESD capability | IEC 61000-4-2(air) | ESD | | | 16 | kV |
| | IEC 61000-4-2(contact) | ESD | | | 8 | kV |
| Clamping Voltage | I _{PP} = 1 A, tp=8/20us | V _c | | | 10 | V |
| | I _{PP} = 4 A, tp=8/20us | V _c | | | 17 | V |
| Peak Pulse Power | T _P =8/20us | P _{PP} | | | 58 | W |
| Operation temperature range | | T _J | -55 | | 125 | °C |
| Storage temperature range | | T _{STG} | -55 | | 150 | °C |

RATING AND CHARACTERISTIC CURVES (CPDURT5V0C-HF)

Fig.1 - Reverse Characteristics

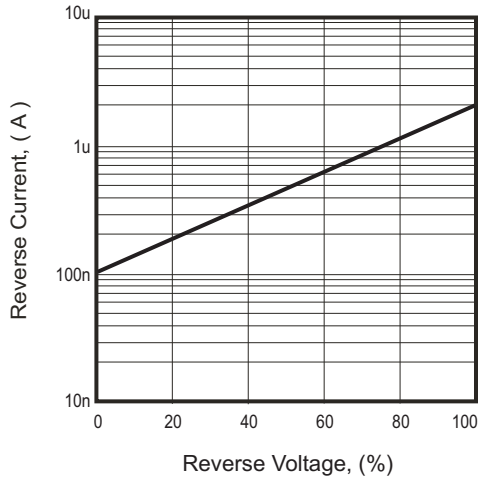


Fig.2 - Capacitance Between Terminals Characteristics

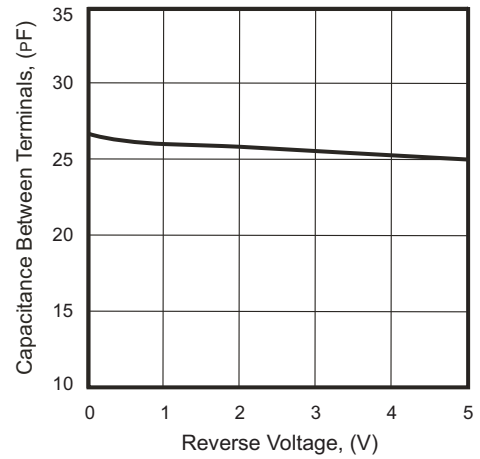


Fig.3 - Clamping Voltage vs. Peak Pulse Current

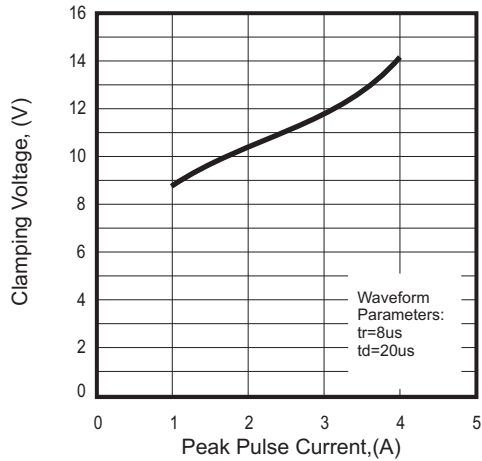
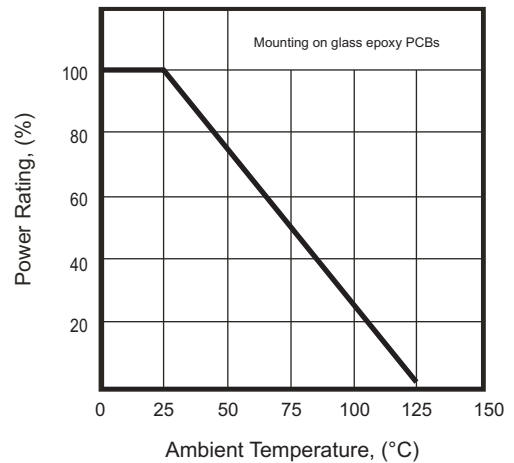
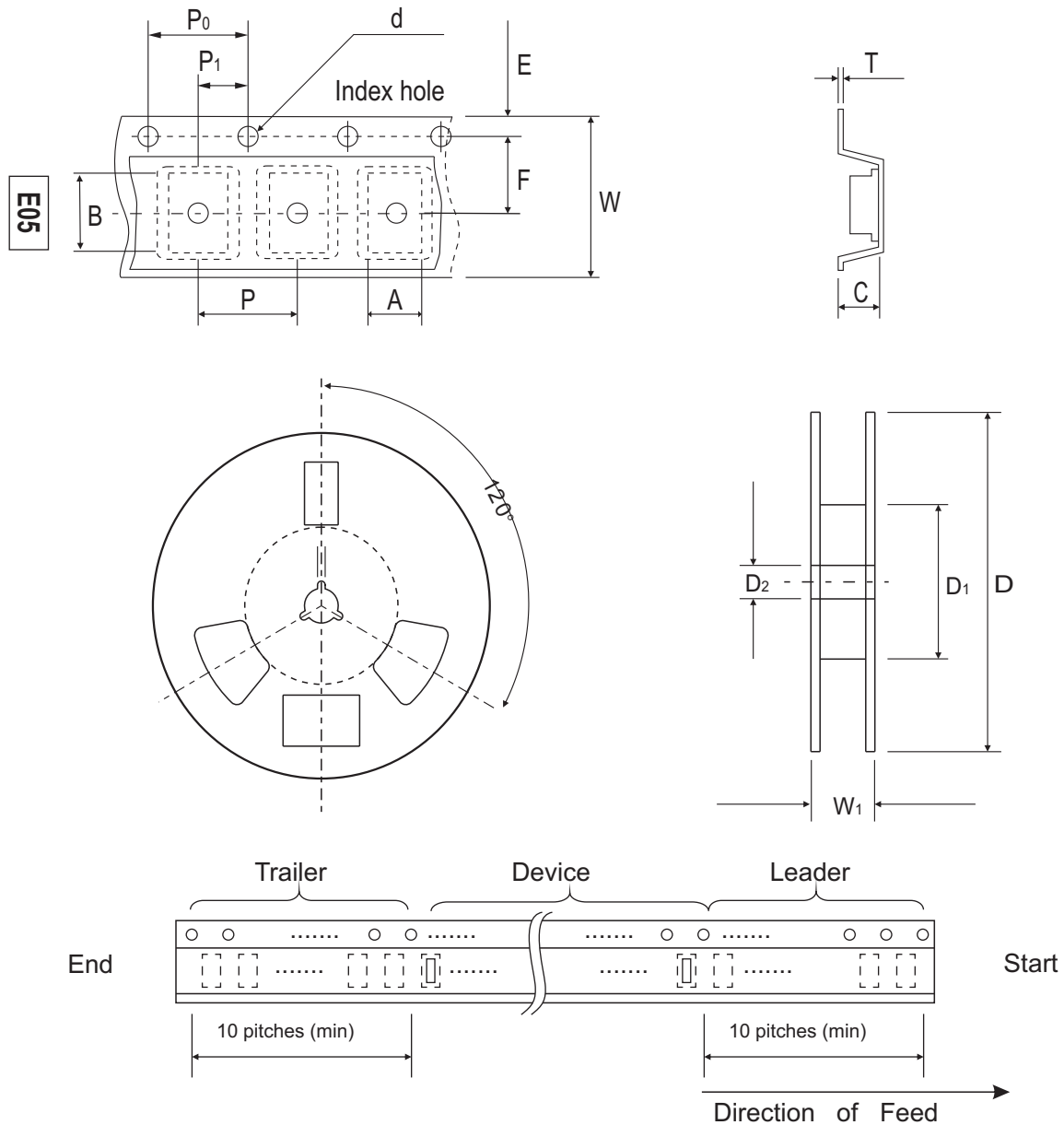


Fig.4 - Power Rating Derating Curve



Reel Taping Specification



| 0603 (SOD-523F) | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|--------------------|--------|---------------|---------------|---------------|---------------|--------------|----------------|----------------|
| | (mm) | 1.05 ± 0.05 | 1.96 ± 0.05 | 0.57 ± 0.05 | 1.50 + 0.10 | 178 ± 1 | 60.0 MIN. | 13.0 ± 0.20 |
| | (inch) | 0.041 ± 0.002 | 0.077 ± 0.002 | 0.022 ± 0.002 | 0.059 ± 0.004 | 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 ± 0.05 | 2.00 ± 0.05 | 0.20 ± 0.03 | 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 ± 0.002 | 0.008 ± 0.001 | 0.315 ± 0.008 | 0.531 MAX. |

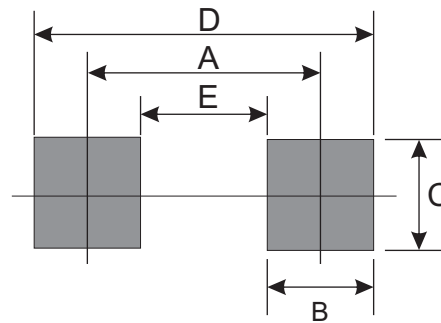
Marking Code

| Part Number | Marking Code |
|---------------|--------------|
| CPDURT5V0C-HF | E05 |



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) |
| URT/0603 | 4,000 | 7 |