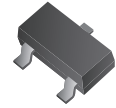


CPDH3-5V0U

RoHS Device



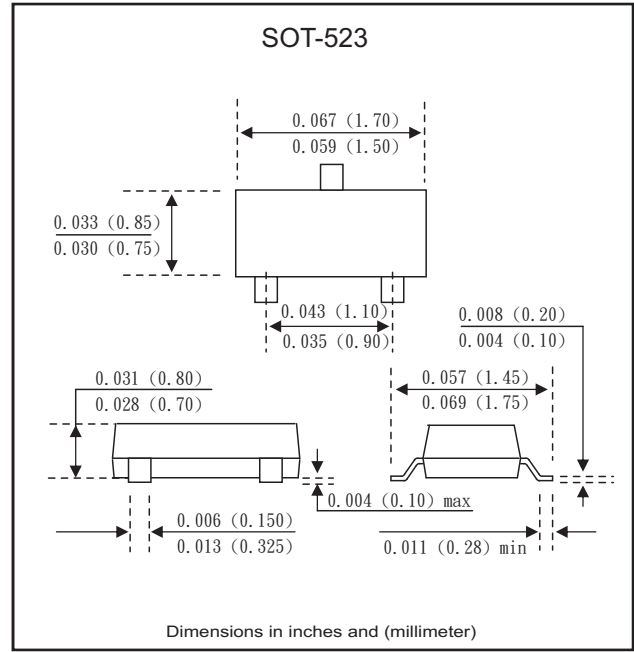
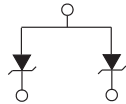
Features

- IEC61000-4-2 8kV(Contact), 15kV(air).
- Surface mount package.
- High component density.

Mechanical data

- Case: SOT-523 Standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750D, method 2026.
- Mounting position: Any.

Marking: E5U



Maximum Ratings and Electrical Characteristics

At TA=25°C ambient temperature unless otherwise specified.

| Characteristics | Symbol | Conditions | Min. | Typ. | Max. | Units |
|-------------------------|------------------|--|------|------|---------|-------|
| Diode breakdown voltage | V _{BD} | I _Z =1mA | 6.1 | | 7.1 | V |
| Leakage current | I _L | V _R =3V | | 0.1 | 1.0 | μA |
| Forward voltage | V _F | I _F =5μA | | | 1.2 | V |
| Junction capacitance | C _T | V _R =0V, f=1MHz | | 60 | 80 | pF |
| Clamping voltage | V _C | I _{PP} =1A, T _P =8/20μs I _{PP} =8A, T _P =8/20μs | | | 8 10 | V |
| ESD capability | V _{ESD} | C=150pF, R=300Ω, forward and reverse 10 pulses | 8 | | | kV |
| Peak pulse power | P _{PP} | | | | 80 | W |
| Storage temperature | T _{STG} | | -55 | | +125 | °C |
| Junction temperature | T _J | | -55 | | +125 | °C |

RATING AND CHARACTERISTIC CURVES (CPDH3-5V0U)

Fig. 1 - 8/20us Peak pulse current wave form acc. IEC 61000-4-5

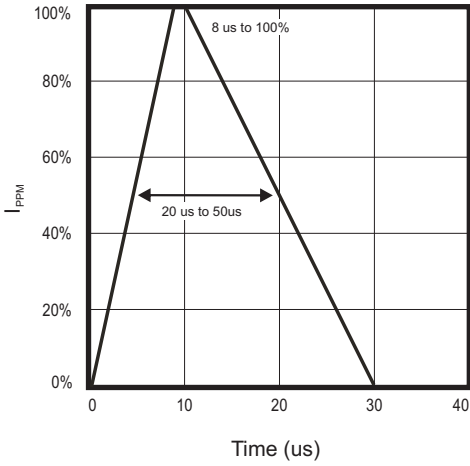


Fig. 2 - Power rating derating curve

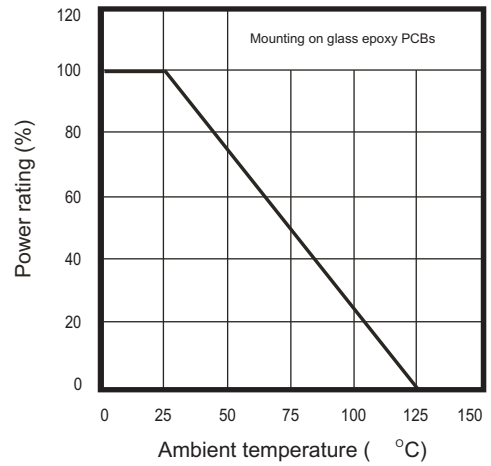


Fig. 3 - Clamping voltage vs. peak pulse current

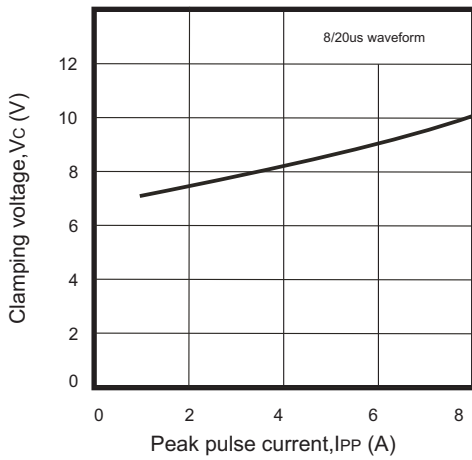
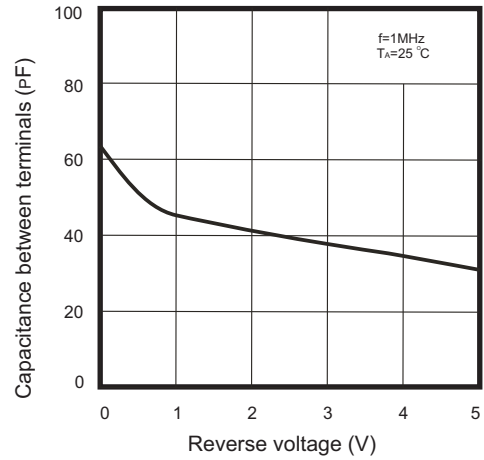
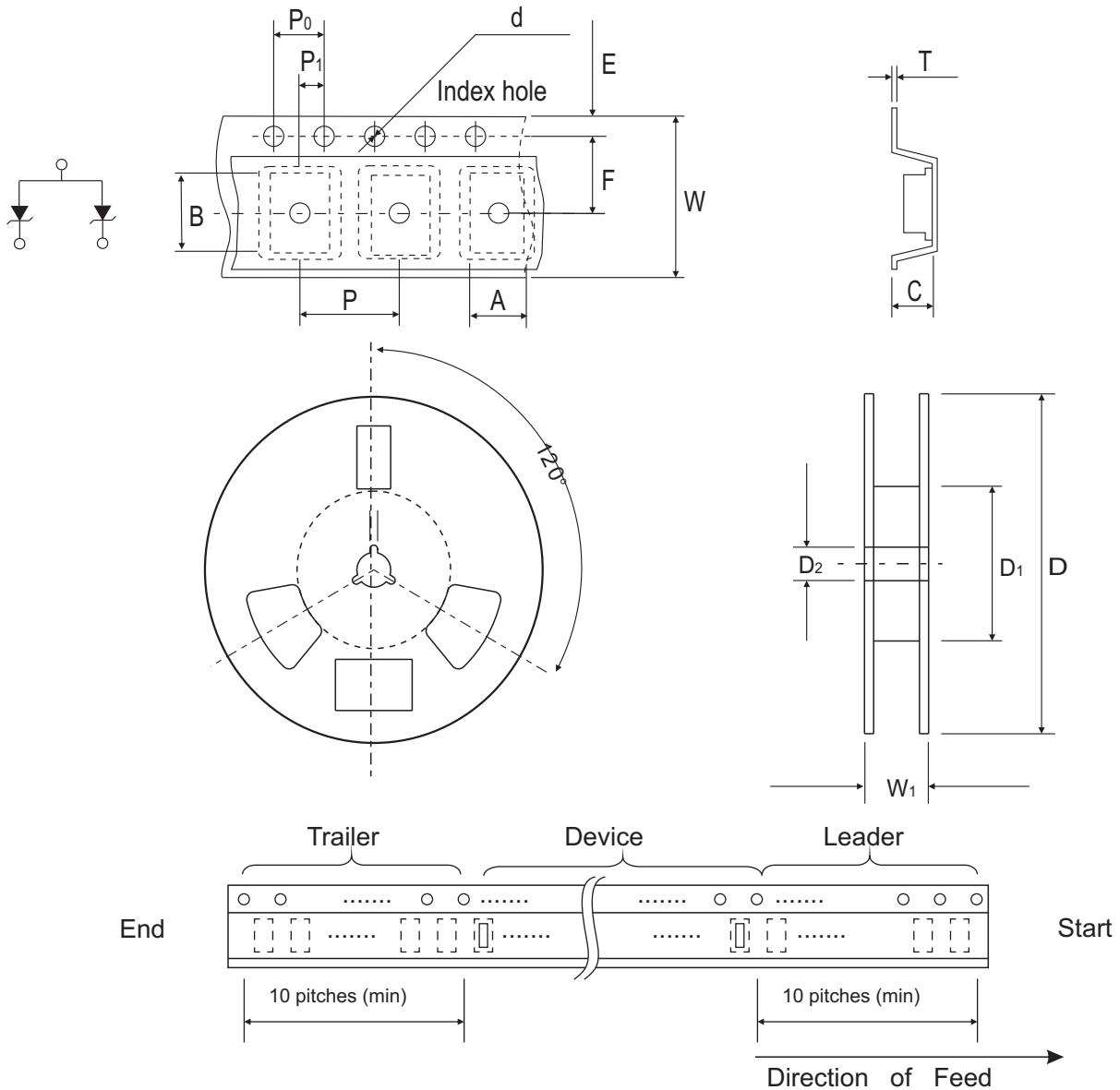


Fig. 4 - Capacitance between terminals characteristics



Reel Taping Specification

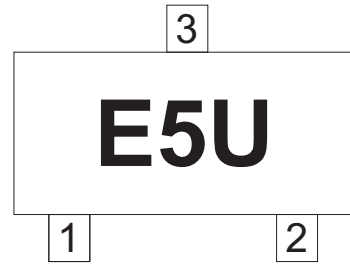


| SOT-523 | SYMBOL | A | B | C | d | D | D1 | D2 |
|---------|--------|---------------|---------------|---------------|---------------|---------------|------------|---------------|
| | (mm) | 1.80 ± 0.10 | 1.80 ± 0.10 | 0.90 ± 0.10 | 1.55 ± 0.10 | 178 ± 1 | 50.0 MIN. | 13.0 ± 0.20 |
| | (inch) | 0.070 ± 0.004 | 0.070 ± 0.004 | 0.035 ± 0.004 | 0.061 ± 0.004 | 7.008 ± 0.040 | 1.969 MIN. | 0.512 ± 0.008 |

| SOT-523 | SYMBOL | E | F | P | P0 | P1 | W | W1 |
|---------|--------|---------------|---------------|---------------|---------------|---------------|---------------|-----------|
| | (mm) | 1.75 ± 0.10 | 3.50 ± 0.05 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 | 8.00 ± 0.30 | 14.4 MAX. |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.315 ± 0.012 | 0.567 MAX |

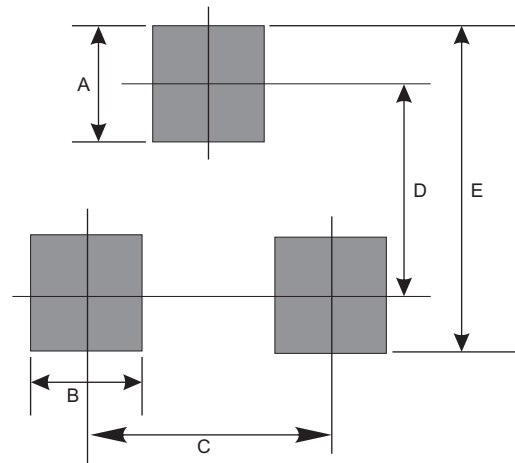
Marking Code

| Park Number | Marking Code |
|-------------|--------------|
| CPDH3-5V0U | E5U |



Suggested PAD Layout

| SIZE | SOT-523 | |
|------|---------|--------|
| | (mm) | (inch) |
| A | 0.80 | 0.031 |
| B | 0.60 | 0.024 |
| C | 1.00 | 0.039 |
| D | 1.24 | 0.049 |
| E | 2.48 | 0.098 |



Standard Package

| Case Type | Qty per Reel | Reel Size |
|-----------|--------------|-----------|
| | (Pcs) | (inch) |
| SOT-523 | 3000 | 7 |