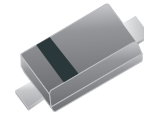


CPDH36V0U-A2HF

RoHS Device

Halogen free

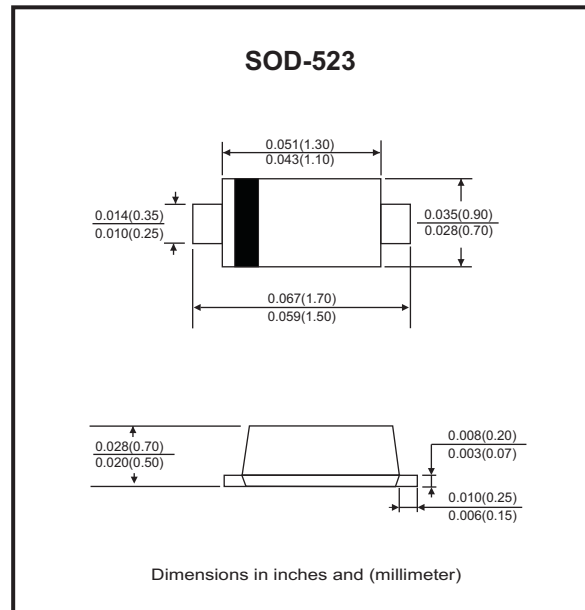


Features

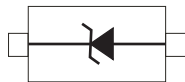
- Low clamping voltage.
- Low Leakage current.
- 200W peak pulse power per line (tp=8/20µs).
- Protects one I/O line.
- Working voltages: 36V

Mechanical data

- Case: SOD-523 , plastic package.
- Molding Compound Flammability Rating: UL 94V-0.
- Weight: 2 Milligrams (approx.).



Circuit Diagram



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

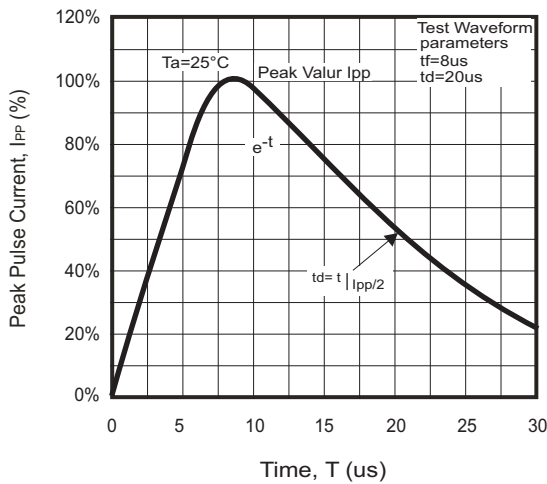
| Parameter | Symbol | Value | Unit |
|--|--------|---------------|------|
| Peak pulse power (tp = 8/20µs waveform) | PPP | 200 | W |
| ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact) | VESD | ±30 | kV |
| Lead soldering temperature | TL | 260 (10 sec) | °C |
| Operating temperature range | TJ | -55 to +150 | °C |
| Storage temperature range | TSTG | -55 to +150 | °C |

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

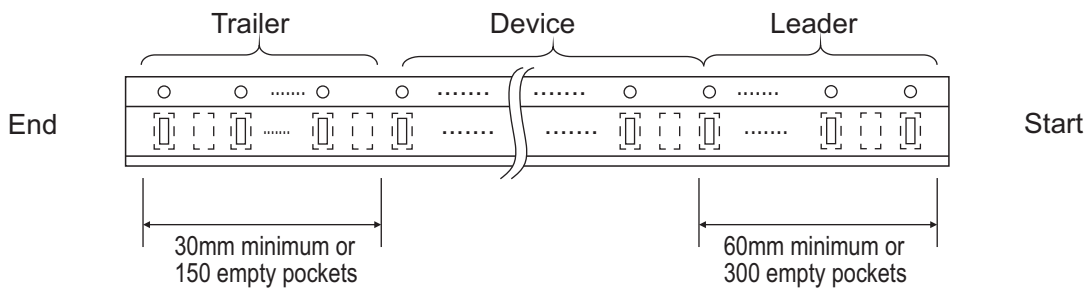
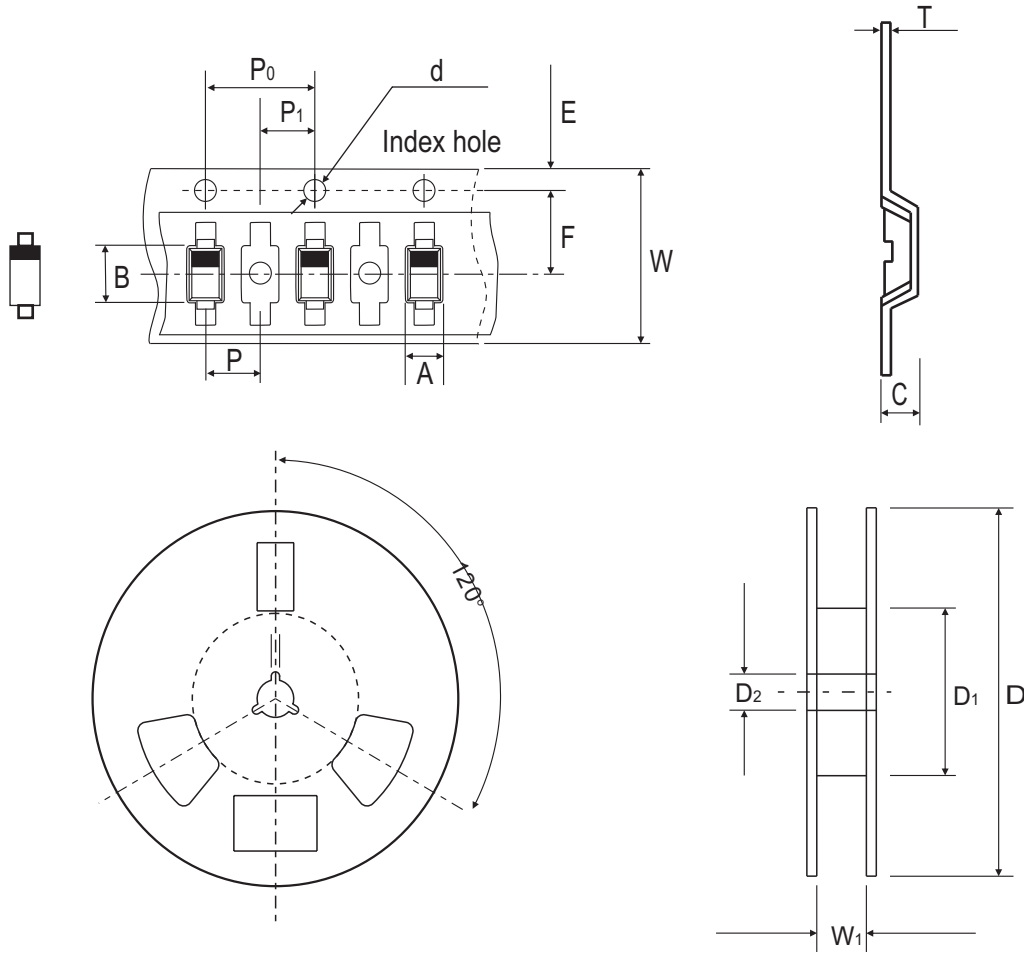
| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|------------------------------|---|-----------|-----|-----|-----|---------------|
| Working peak reverse voltage | | V_{RWM} | | | 36 | V |
| Forward voltage | $I_F = 10\text{mA}$ | V_F | | 0.8 | 1.2 | V |
| Breakdown voltage | $I_T = 1\text{mA}$ | V_{BR} | 40 | | | V |
| Reverse leakage current | $V_{RWM} = 36\text{V}$ | I_R | | | 1 | μA |
| Clamping voltage | $I_{PP} = 1\text{A}, T_P = 8/20\mu\text{s}$ | V_C | | | 55 | V |
| | $I_{PP} = 2\text{A}, T_P = 8/20\mu\text{s}$ | | | | 70 | |
| Junction capacitance | $V_R = 0\text{V}, f = 1\text{MHz}$ | C_J | | 25 | | pF |

Rating and Characteristic Curves (CPDH36V0U-A2HF)

Fig.1 - Pulse Waveform



Reel Taping Specification



| SOD-523 | SYMBOL | A | B | C | d | D | D1 | D2 |
|---------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | (mm) | 0.90 ± 0.05 | 1.95 ± 0.05 | 0.73 ± 0.05 | 1.50 ± 0.10 | 178.00 ± 1.00 | 54.40 ± 0.40 | 13.00 ± 0.20 |
| | (inch) | 0.035 ± 0.002 | 0.077 ± 0.002 | 0.029 ± 0.002 | 0.059 ± 0.004 | 7.008 ± 0.039 | 2.142 ± 0.016 | 0.512 ± 0.008 |

| SOD-523 | SYMBOL | E | F | P | P0 | P1 | W | W1 |
|---------|--------|---------------|---------------|---------------|---------------|---------------|-------------------------|---------------|
| | (mm) | 1.75 ± 0.10 | 3.50 ± 0.05 | 2.00 ± 0.05 | 4.00 ± 0.10 | 2.00 ± 0.05 | 8.00 + 0.30 / - 0.10 | 9.40 ± 1.50 |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.079 ± 0.002 | 0.158 ± 0.004 | 0.079 ± 0.002 | 0.315 + 0.012 / - 0.004 | 0.370 ± 0.059 |

Company reserves the right to improve product design, functions and reliability without notice.

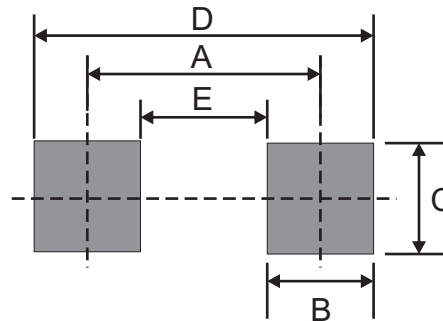
Marking Code

| Part Number | Marking Code |
|----------------|--------------|
| CPDH36V0U-A2HF | KT |



Suggested PAD Layout

| SIZE | SOD-523 | |
|------|---------|--------|
| | (mm) | (inch) |
| A | 1.40 | 0.055 |
| B | 0.40 | 0.016 |
| C | 0.40 | 0.016 |
| D | 1.80 | 0.071 |
| E | 1.00 | 0.039 |



Standard Packaging

| Case Type | REEL PACK | |
|-----------|--------------|------------------|
| | REEL (pcs) | Reel Size (inch) |
| SOD-523 | 3,000 | 7 |