

CPDA10R3V3U-HF

RoHS Device

Halogen Free



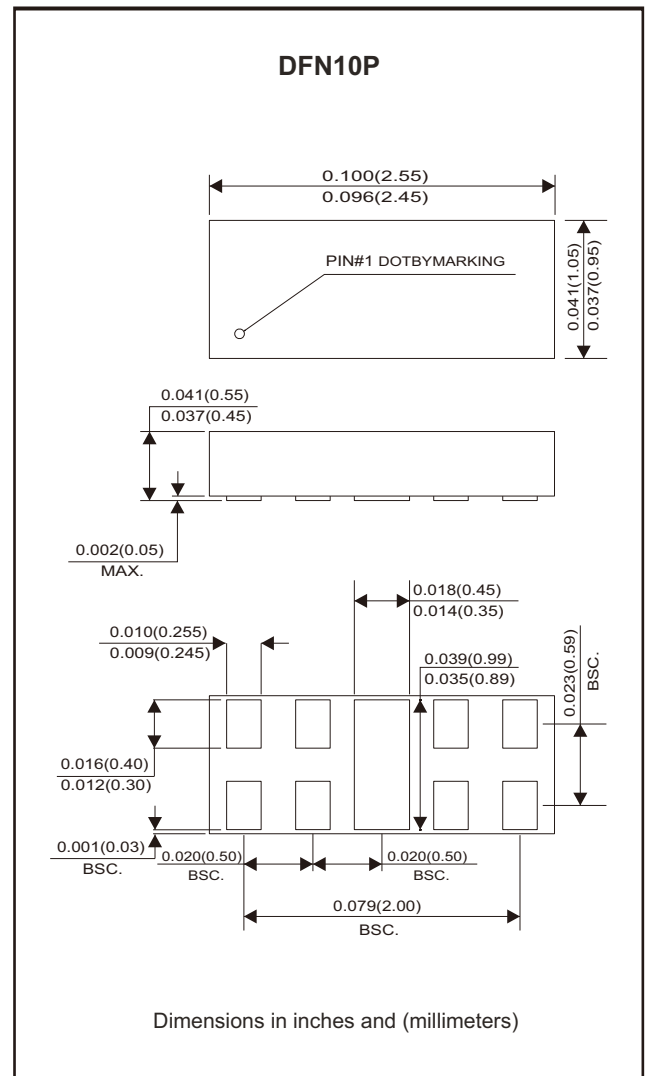
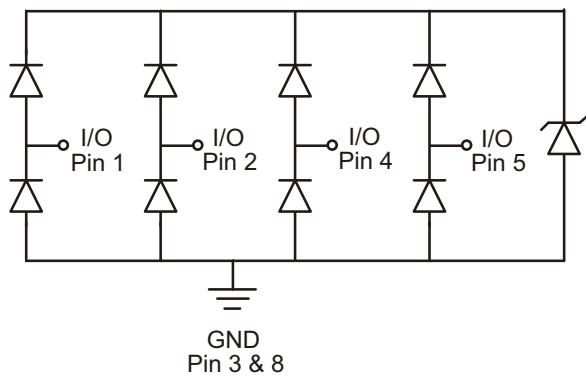
Features

- IEC61000-4-2 (ESD) \pm 15kV(Contact)
- Working voltage: 3.3 V
- Low leakage current.
- Low capacitance: 0.5 pF typical (I/O to GND)

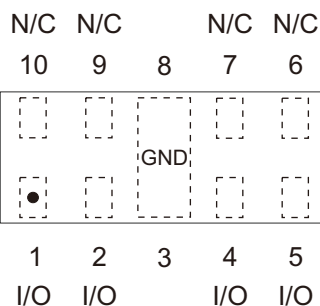
Mechanical data

- Case: DFN10P package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750,method 2026.
- Mounting position: Any

Circuit Diagram



Package



• = Pin 1 indicator

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

| Parameter | Symbol | Value | Unit |
|--|--------|-------------|------|
| Peak pulse power (tp = 8/20 us) | PPP | 55 | W |
| Peak pulse current (tp = 8/20 us) | IPP | 5 | A |
| ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact) | ESD | ±15 | kV |
| Operating temperature range | TJ | -55 to +125 | °C |
| Storage temperature range | TSTG | -55 to +150 | °C |

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

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|---------------------------|--|--------|-----|------|-----|------|
| Reverse stand-off voltage | | VRWM | | | 3.3 | V |
| Forward voltage | IF = 10 mA | VF | | | 1.2 | V |
| Breakdown voltage | IT = 1 mA | VBR | 4 | | | V |
| Leakage current | VRWM = 3.3V | IR | | | 0.5 | uA |
| Clamping voltage | IPP = 1A, TP = 8/20us, I/O Pin to GND | VC | | 5.6 | 6.5 | V |
| | IPP = 5A, TP = 8/20us, I/O Pin to GND | VC | | 9 | 11 | V |
| Clamping voltage | IPP = 8A, TP = 100ns, I/O Pin to GND | VCL | | 9.3 | | V |
| | IPP = 16A, TP = 100ns, I/O Pin to GND | VCL | | 13 | | V |
| Dynamic resistance | I/O Pin to GND | RDYN | | 0.46 | | Ω |
| Junction capacitance | VR = 0V, f = 1MHz I/O Pin to GND | Cj | | 0.5 | 0.7 | pF |

RATING AND CHARACTERISTIC CURVES (CPDA10R3V3U-HF)

Fig.1 - 8/20us Peak Pulse Current Waveform ACC. IEC 61000-4-5

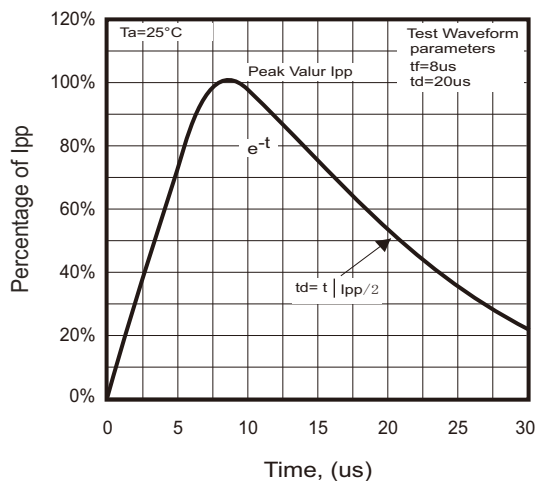


Fig.2 - Forward Characteristics

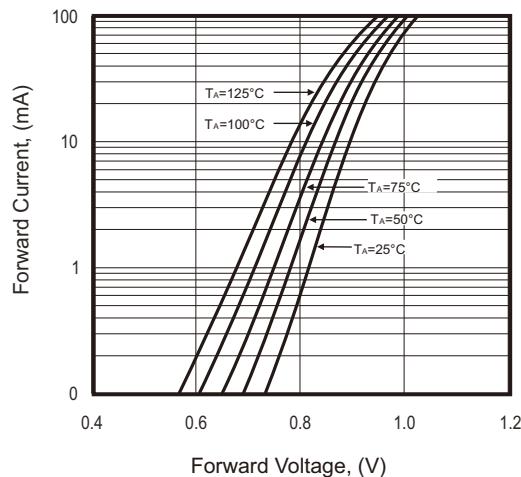


Fig.3 - Clamping Voltage Vs. Peak Pulse Current

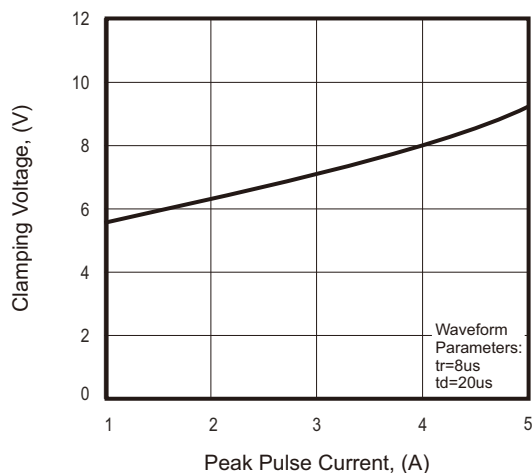


Fig.4 - Power Rating Derating Curve

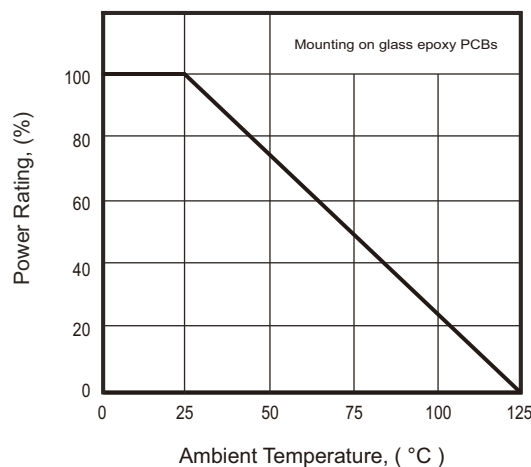


Fig.5 - Typical Capacitance Between Terminals Characteristics

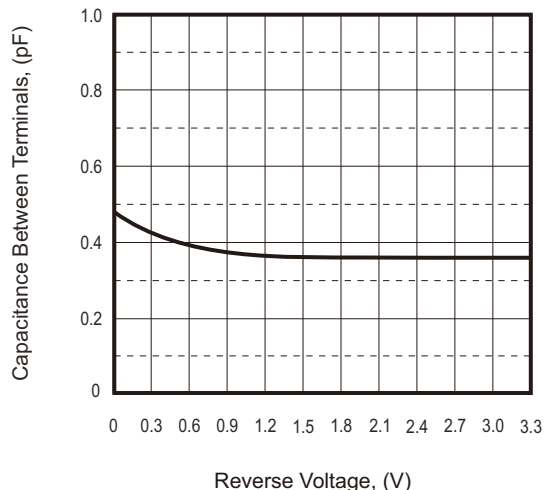
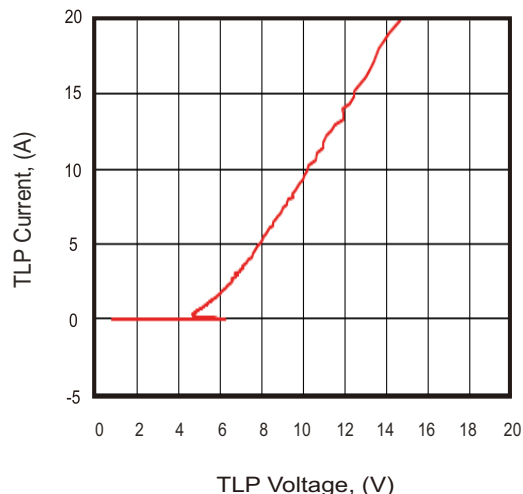
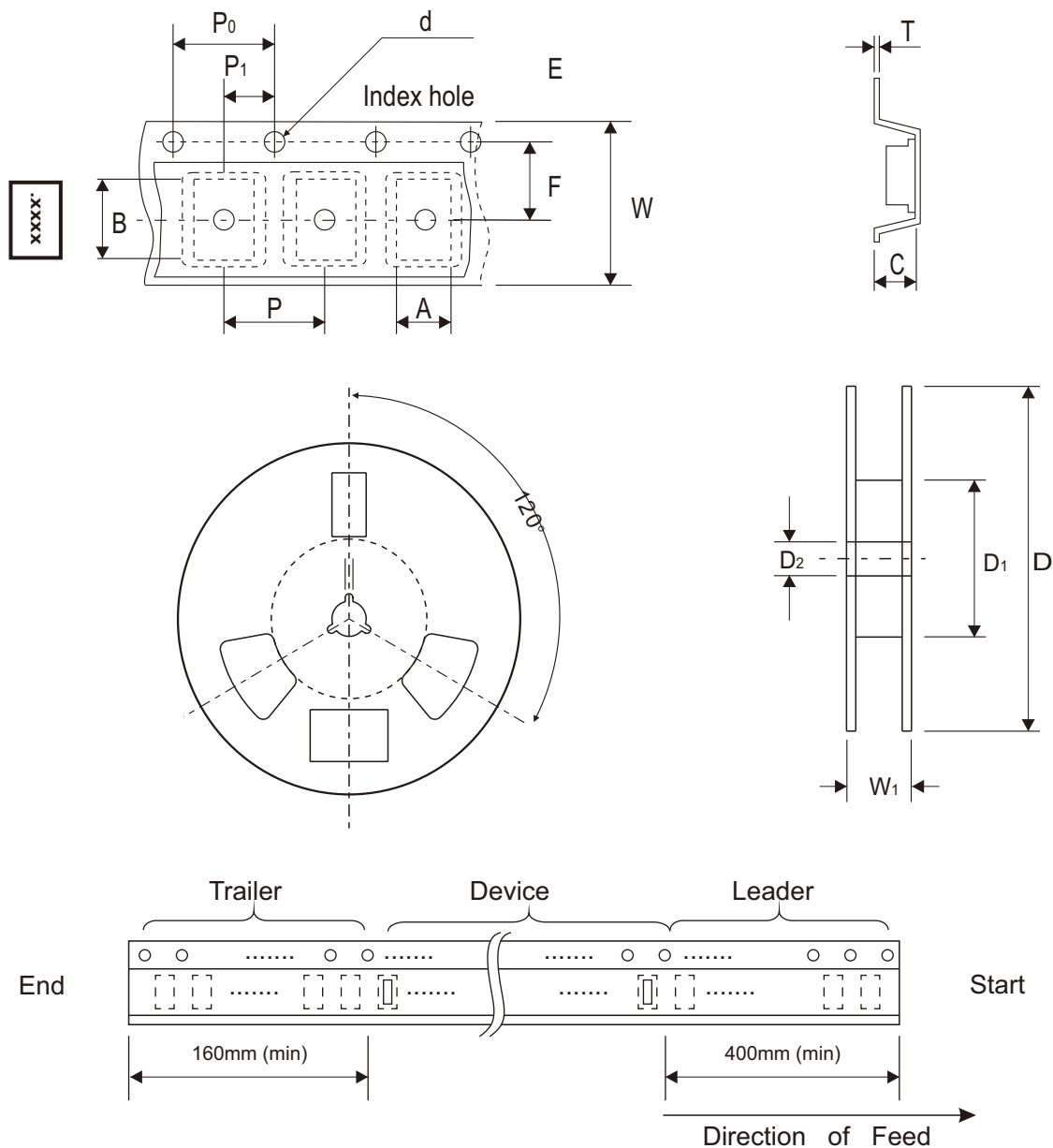


Fig.6 - TLP IV Curve



Reel Taping Specification



| DFN10P | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|--------|--------|---------------|---------------|---------------|----------------------|---------------|----------------|----------------|
| | (mm) | 1.14 ± 0.05 | 2.64 ± 0.05 | 0.64 ± 0.05 | 1.50 + 0.10 - 0 | 178.00 ± 1.00 | 60.00 ± 0.50 | 13.50 ± 0.20 |
| | (inch) | 0.045 ± 0.002 | 0.104 ± 0.002 | 0.025 ± 0.002 | 0.059 + 0.004 - 0 | 7.008 ± 0.039 | 2.362 ± 0.020 | 0.531 ± 0.008 |

| DFN10P | 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 | 0.20 ± 0.05 | 8.00 ± 0.30 | 12.00 + 0.50 - 0 |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.008 ± 0.002 | 0.315 ± 0.012 | 0.472 + 0.020 - 0 |

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

REV:B

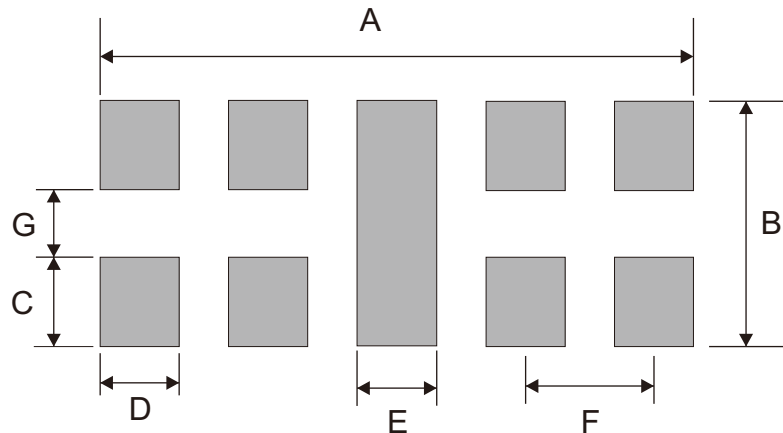
Marking Code

| Part Number | Marking Code |
|----------------|--------------|
| CPDA10R3V3U-HF | .E3V3 |



Suggested PAD Layout

| SIZE | DFN10P | |
|------|--------|--------|
| | (mm) | (inch) |
| A | 2.30 | 0.091 |
| B | 1.00 | 0.039 |
| C | 0.38 | 0.015 |
| D | 0.30 | 0.012 |
| E | 0.30 | 0.012 |
| F | 0.50 | 0.020 |
| G | 0.24 | 0.009 |



Standard Packaging

| Case Type | Qty Per Reel | Reel Size |
|-----------|--------------|-----------|
| | (Pcs) | (inch) |
| DFN10P | 3,000 | 7 |