

## CPDA10R5V0P-HF

**RoHS Device**  
**Halogen Free**

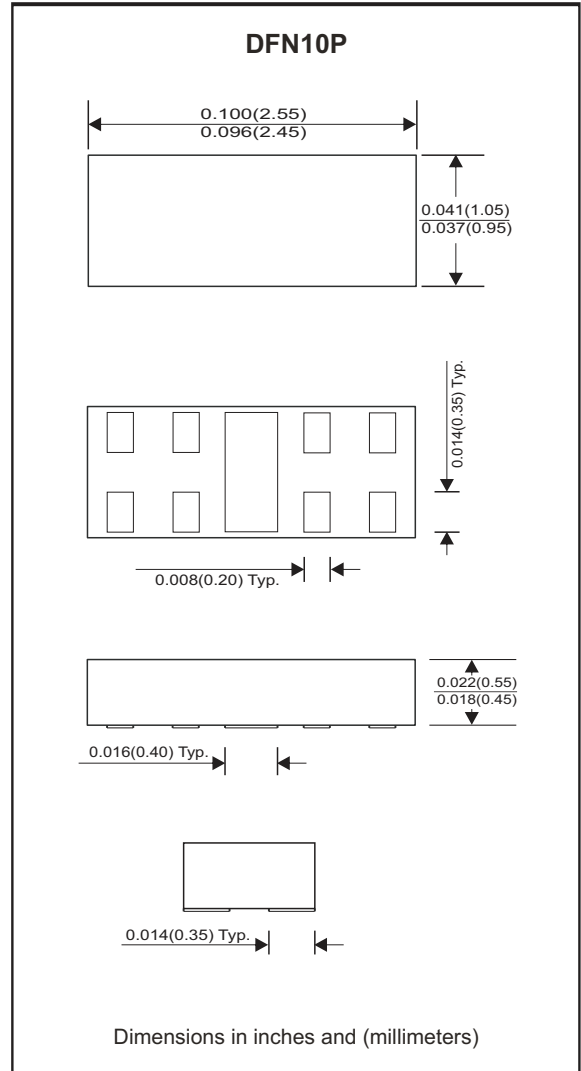
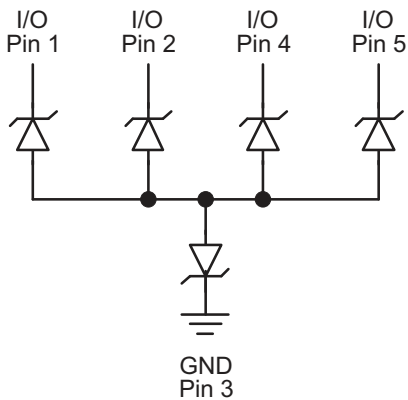
### Features

- IEC61000-4-2 (ESD) $\pm$ 14kV(Contact), $\pm$ 15kV(Air).
- Working voltage: 5.0 V
- Low leakage current.
- Low capacitance: 0.25 pF typical (I/O to GND)

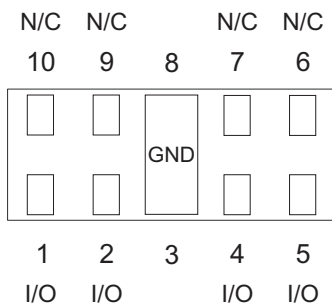
### Mechanical data

- Case: DFN10p package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Mounting position: Any

### Circuit Diagram



### Package



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

| Parameter  | Symbol           | Value       | Unit |
|--|------------------|-------------|------|
| Peak pulse power ( tp = 8/20 us)                             | PPP              | 60          | W    |
| Peak pulse current ( tp = 8/20 us)                           | I <sub>PP</sub>  | 3           | A    |
| ESD per IEC 61000-4-2(Air)<br>ESD per IEC 61000-4-2(Contact) | ESD              | ±15<br>±14  | kV   |
| Operating temperature range                                  | T <sub>J</sub>   | -55 to +125 | °C   |
| Storage temperature range                                    | T <sub>STG</sub> | -55 to +150 | °C   |

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

| Parameter                 | Conditions   | Symbol           | Min | Typ  | Max | Unit |
|---------------------------|--|------------------|-----|------|-----|------|
| Reverse stand-off voltage |  | V <sub>RWM</sub> |     |      | 5   | V    |
| Breakdown voltage         | I <sub>R</sub> = 1mA   | V <sub>BR</sub>  | 6.0 |      |     | V    |
| Leakage current           | V <sub>R</sub> = 5.0V  | I <sub>L</sub>   |     |      | 50  | nA   |
| Clamping voltage          | I <sub>PP</sub> = ±1 A, T <sub>p</sub> =8/20us,<br>Any Channel Pin to Ground | V <sub>C</sub>   |     | 11   |     | V    |
|                           | I <sub>PP</sub> = ±2 A, T <sub>p</sub> =8/20us,<br>Any Channel Pin to Ground | V <sub>C</sub>   |     | 13   |     | V    |
| Junction capacitance      | V <sub>R</sub> = 0 V, f = 1MHz<br>Any Channel Pin to Ground                  | C <sub>j</sub>   |     | 0.25 |     | pF   |

## RATING AND CHARACTERISTIC CURVES (CPDA10R5V0P-HF)

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

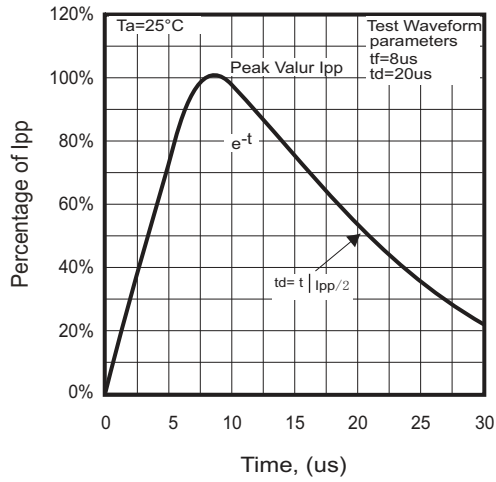


Fig.2 - Typical Capacitance Between Terminals Characteristics

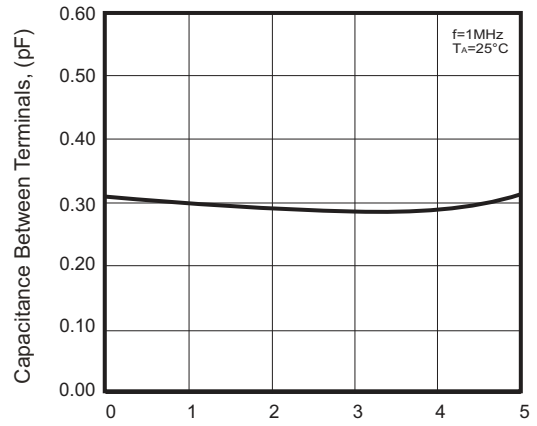


Fig.3 - Typical Clamping Voltage Vs. Peak Pulse Current

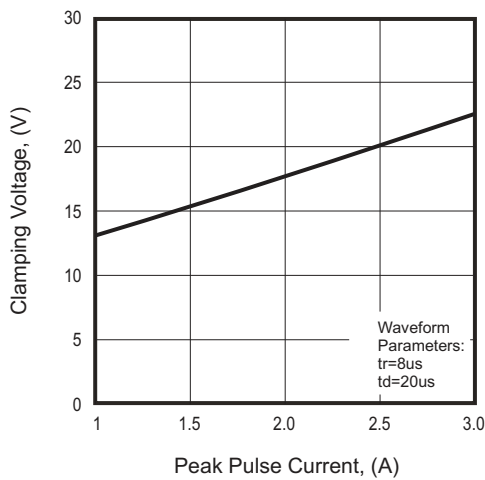
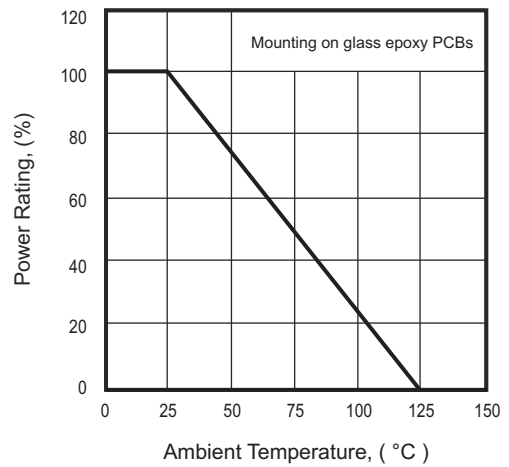
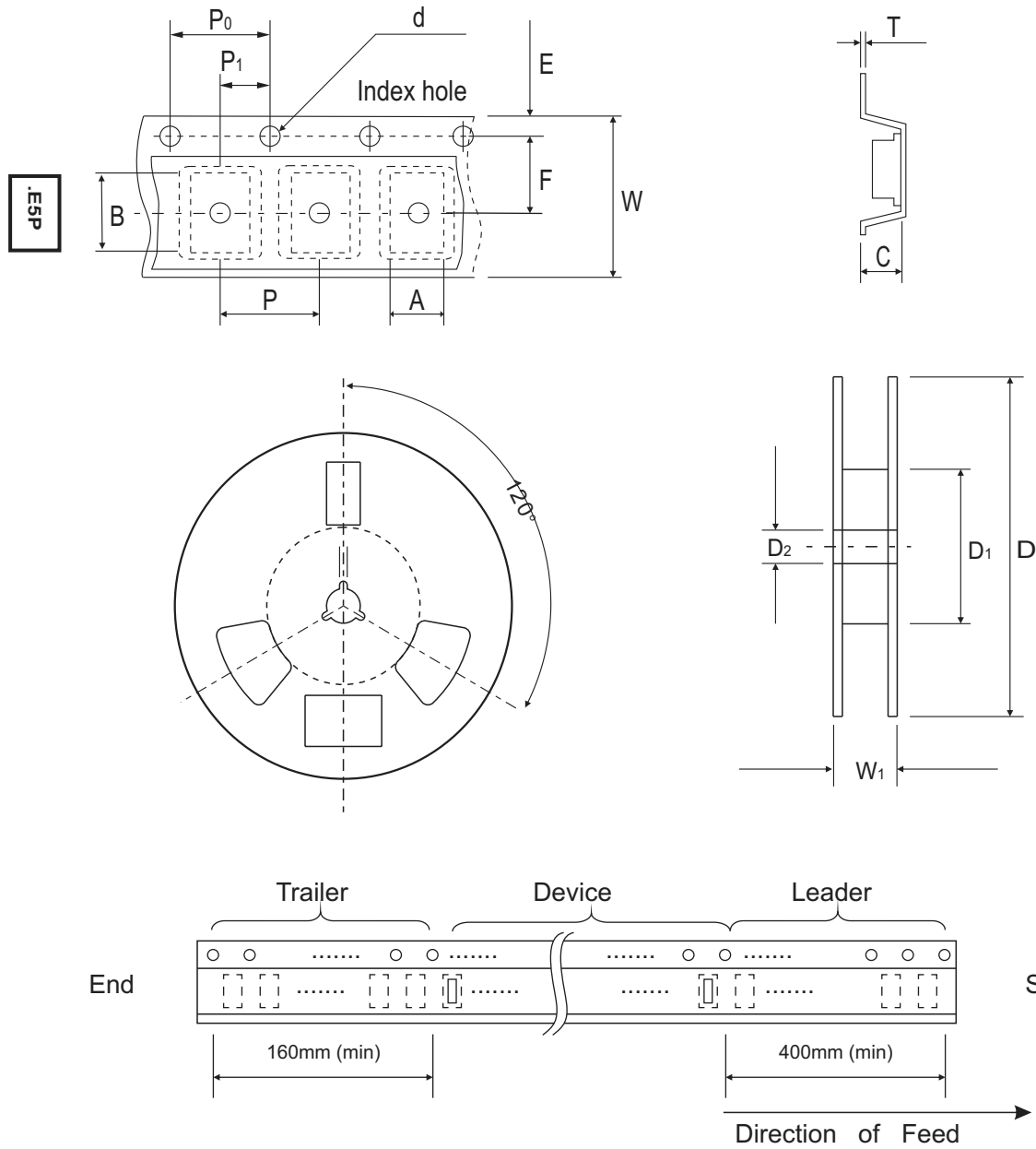


Fig.4 - Power Rating Derating Curve



## Reel Taping Specification



| DFN10P | SYMBOL | A             | B             | C             | d                    | D             | D <sub>1</sub>       | D <sub>2</sub> |
|--------|--------|---------------|---------------|---------------|----------------------|---------------|----------------------|----------------|
|        | (mm)   | 1.14 ± 0.05   | 2.64 ± 0.05   | 0.64 ± 0.05   | 1.50 + 0.10<br>- 0   | 178.00 ± 1.00 | 60.00 + 0.50<br>- 0  | 13.00 ± 0.20   |
|        | (inch) | 0.045 ± 0.002 | 0.104 ± 0.002 | 0.025 ± 0.002 | 0.059 + 0.004<br>- 0 | 7.008 ± 0.039 | 2.362 + 0.020<br>- 0 | 0.512 ± 0.008  |

| DFN10P | SYMBOL | E             | F             | P             | P <sub>0</sub> | P <sub>1</sub> | T             | W             | W <sub>1</sub> |
|--------|--------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
|        | (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 ± 0.15   |
|        | (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 ± 0.006  |

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

REV:A

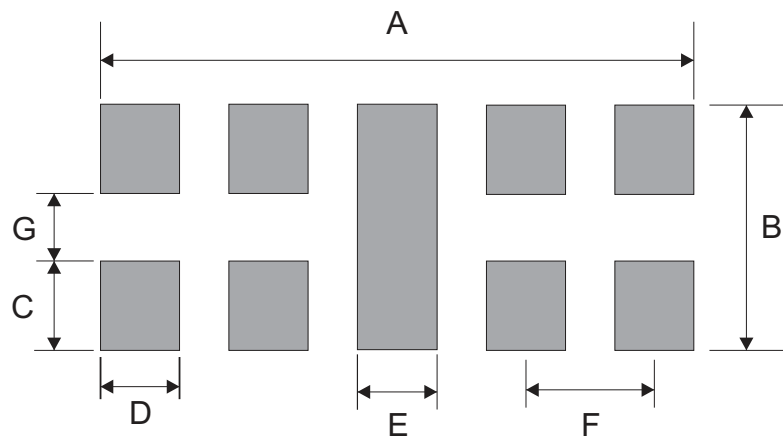
## Marking Code

| Part Number    | Marking Code |
|----------------|--------------|
| CPDA10R5V0P-HF | .E5P         |



## 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         |