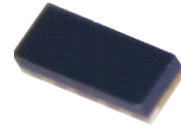


CPDA10R5V0SC-HF

RoHS Device

Halogen Free



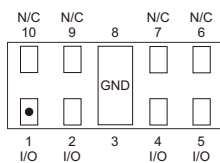
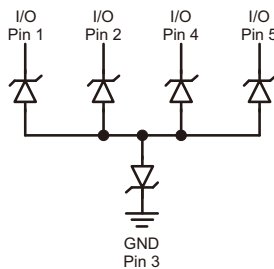
Features

- IEC 61000-4-2 (ESD) $\pm 14\text{kV}$ (contact), $\pm 15\text{kV}$ (air).
- Working voltage: 5V.
- Low leakage current.
- Low capacitance: 0.25pF typical (I/O to GND).

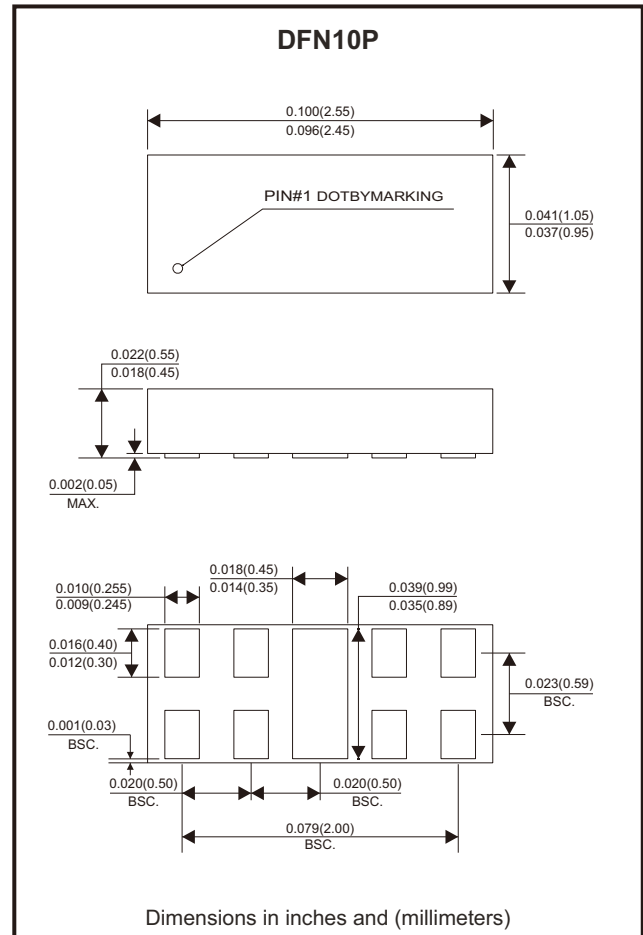
Mechanical data

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

Circuit Diagram



● = Pin 1 indicator



Dimensions in inches and (millimeters)

Application

- USB 3.0/USB 3.1
- eSATA 3.0
- Thunderbolt (Light peak)
- HDMI 1.3/1.4/2.0/2.1
- Display Port

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

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu\text{s}$	P_{PP}	60	W
Peak pulse current	$T_P = 8/20\mu\text{s}$	I_{PP}	3	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	± 15 ± 14	kV
Operating temperature range		T_J	-55 to +125	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55 to +150	$^\circ\text{C}$

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}			5	V
Breakdown voltage	$I_T = 1\text{mA}$	V_{BR}	6			V
Reverse leakage current	$V_{RWM} = 5\text{V}$	I_R			50	nA
Clamping voltage	$I_{PP} = 1\text{A}$, $T_p = 8/20\mu\text{s}$, Any Channel Pin to Ground	V_C		11		V
	$I_{PP} = 2\text{A}$, $T_p = 8/20\mu\text{s}$, Any Channel Pin to Ground	V_C		13		
	$I_{PP} = 3\text{A}$, $T_p = 8/20\mu\text{s}$, Any Channel Pin to Ground	V_C		18	20	
Junction capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$, Any Channel Pin to Ground	C_J		0.25		pF

Typical Rating and Characteristic Curves (CPDA10R5V0SC-HF)

Fig.1 - 8/20 μs Peak Pulse Current
Waveform Acc. IEC 61000-4-5

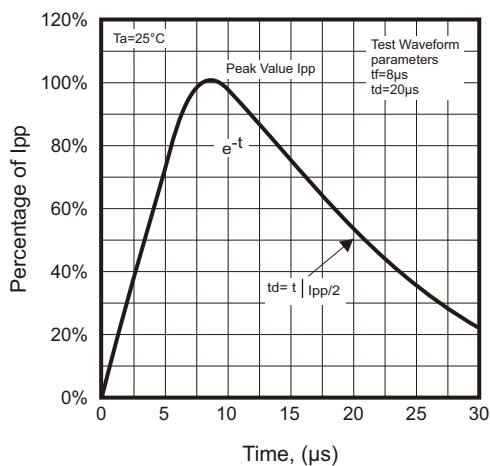


Fig.2 - Power Rating Derating Curve

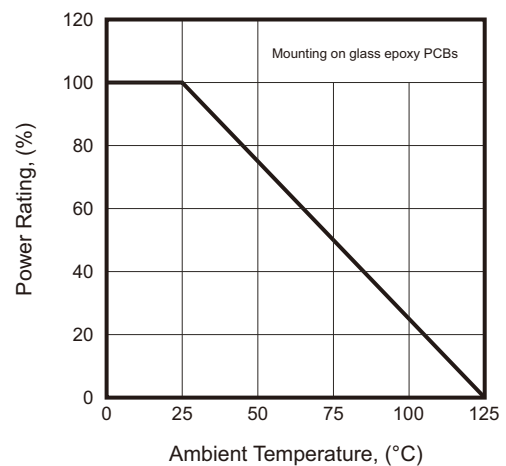


Fig.3 - Typical Clamping Voltage vs.
Peak Pulse Current

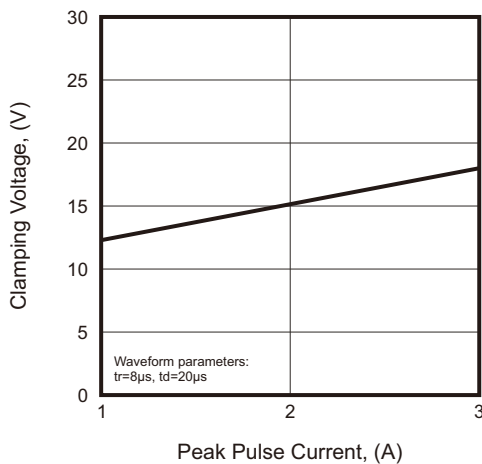
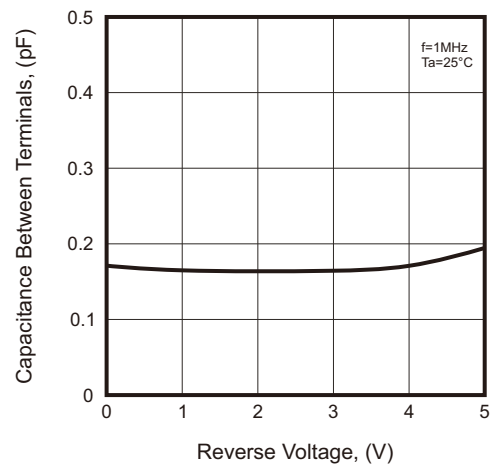
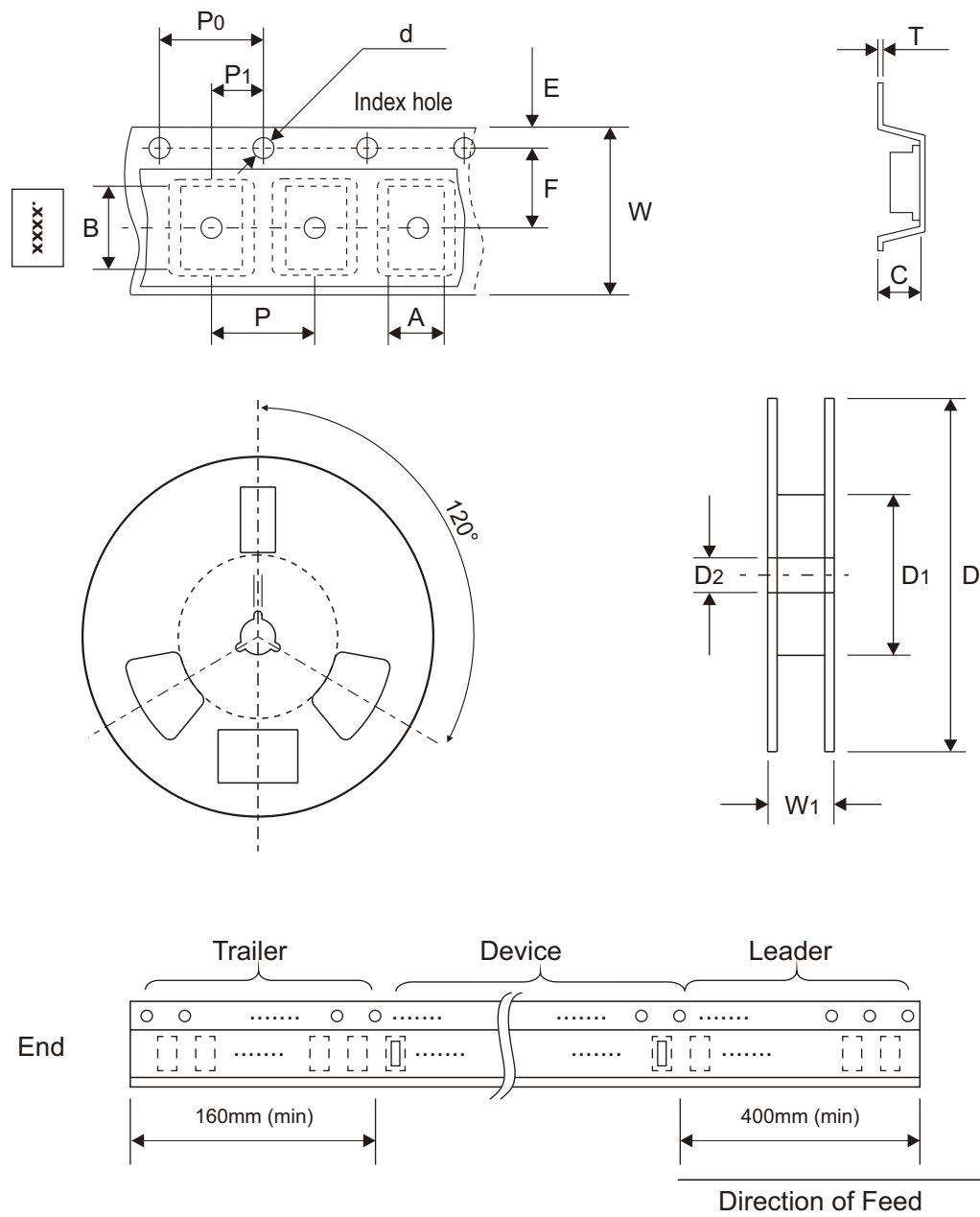


Fig.4 - Typical Capacitance Between
Terminals Characteristics



Reel Taping Specification



DFN10P	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.14 ± 0.05	2.64 ± 0.05	0.64 ± 0.05	1.50 + 0.10 - 0.00	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 - 0.000	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

DFN10P	SYMBOL	E	F	P	P0	P1	T	W	W1
	(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 - 0.00
	(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 - 0.000

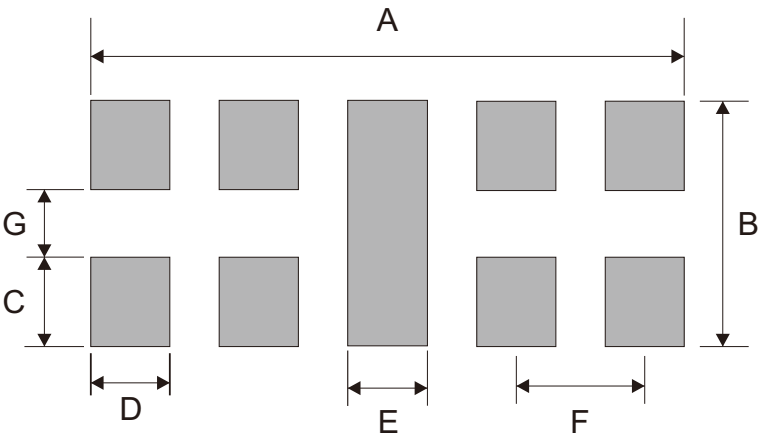
Marking Code

Part Number	Marking Code
CPDA10R5V0SC-HF	.E5SC



Suggested P.C.B. 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	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DFN10P	3,000	7