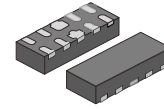


CPDVR0524P-HF

RoHS Device

Halogen Free



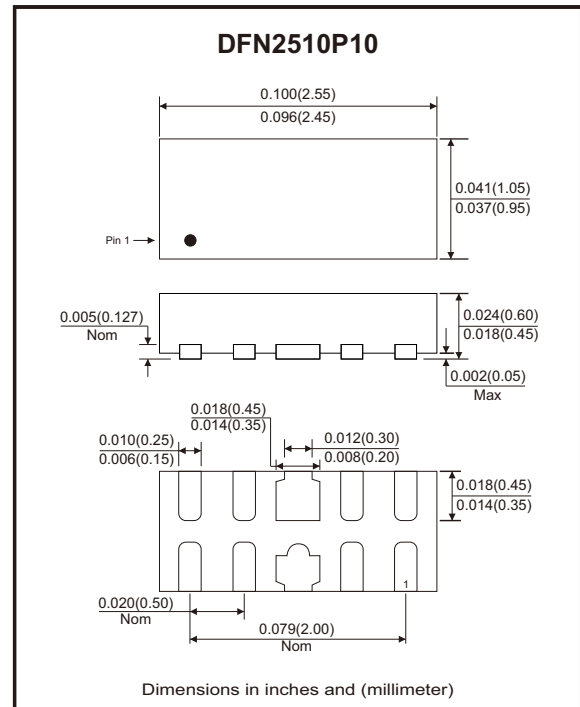
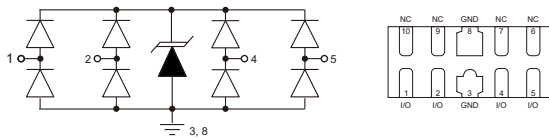
Features

- Uni-directional configurations.
- Solid-state silicon-avalanche technology.
- Low clamping voltage.
- Low leakage current.
- Complies with following standards:
IEC 61000-4-2 (ESD) immunity test
air discharge: $\pm 25\text{KV}$; contact discharge: $\pm 20\text{KV}$
IEC 61000-4-4 (EFT) 40A (5/50ns)
IEC 61000-4-5 (Lightning) 4A (8/20 μs)

Mechanical data

- Case: DFN2510P10package, molded plastic.
- Mounting position: Any.

Circuit Diagram



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}	4	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	V_{ESD}	± 25 ± 20	kV
Lead soldering temperature (10s)		T_L	260	$^\circ\text{C}$
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
Reverse working voltage		V_{RWM}			5	V
Breakdown voltage	$I_r = 1\text{mA}$	V_{BR}	6	7		V
Reverse leakage current	$V_{RWM} = 5\text{V}$	I_R		0.001	0.1	μA
Clamping voltage	$I_{PP} = 1\text{A}$, $T_P = 8/20\mu\text{s}$	V_C		8		V
	$I_{PP} = 4\text{A}$, $T_P = 8/20\mu\text{s}$	V_C		12	14	V
Junction capacitance between I/O pins	$V_{DC} = 0\text{V}$, $f = 1\text{MHz}$	C_J		0.25	0.4	pF
Junction capacitance	$V_{DC} = 0\text{V}$, $f = 1\text{MHz}$	C_J		0.45	0.8	pF

Notes: The default test is I/O pin ground.

Typical Rating and Characteristic Curves (CPDVR0524P-HF)

Fig.1 - Peak Pulse Power Rating

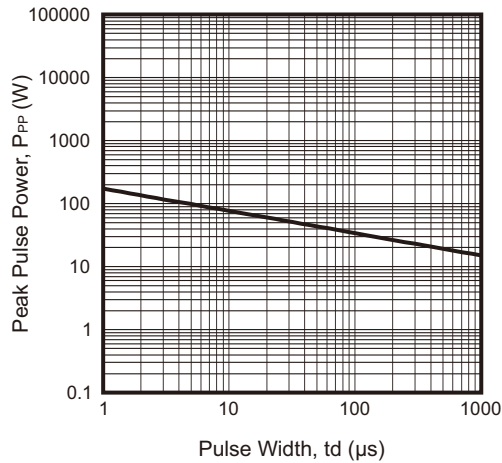


Fig.2 - Pulse Dreating Curve

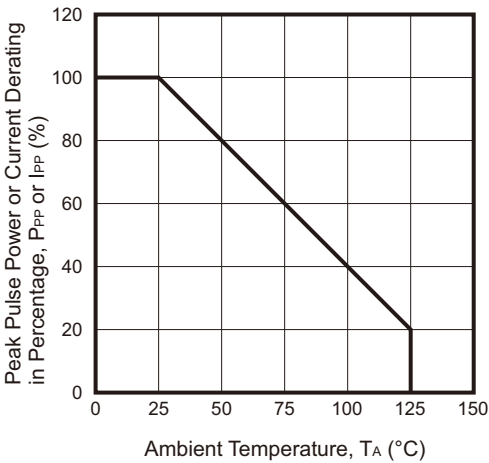


Fig.3 - 8/20μs Pulse Waveform

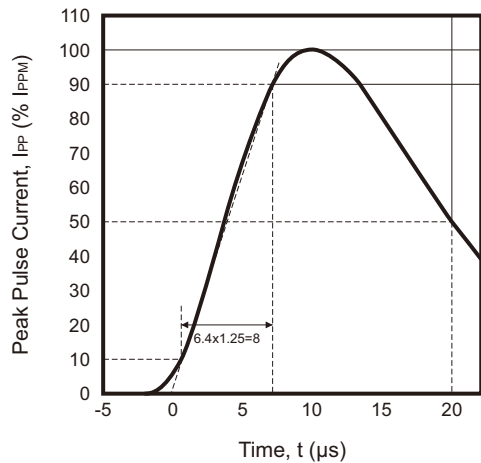


Fig.4 - Typical Clamping Voltage

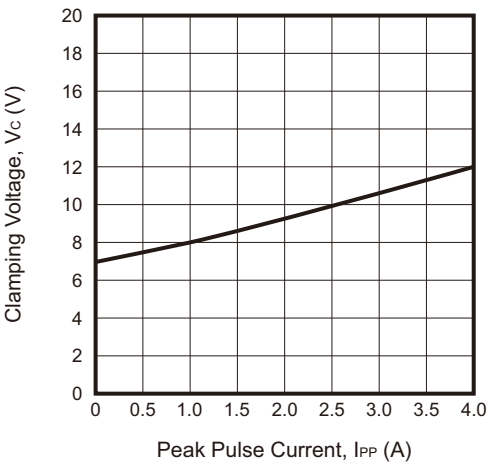


Fig.5 - ESD Pulse Waveform (IEC 61000-4-2)

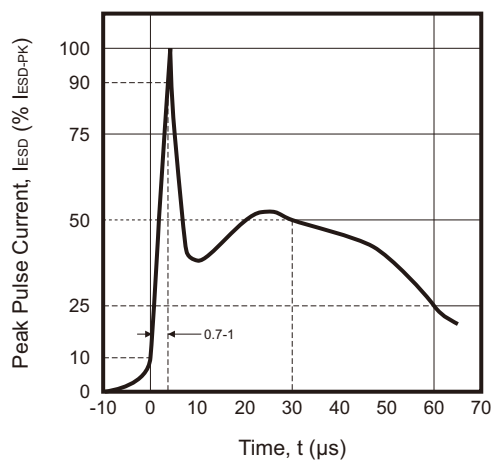
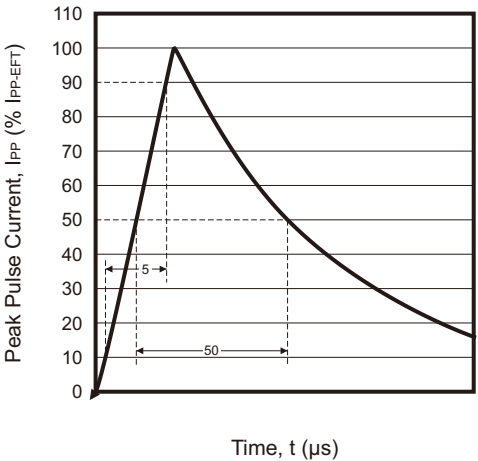
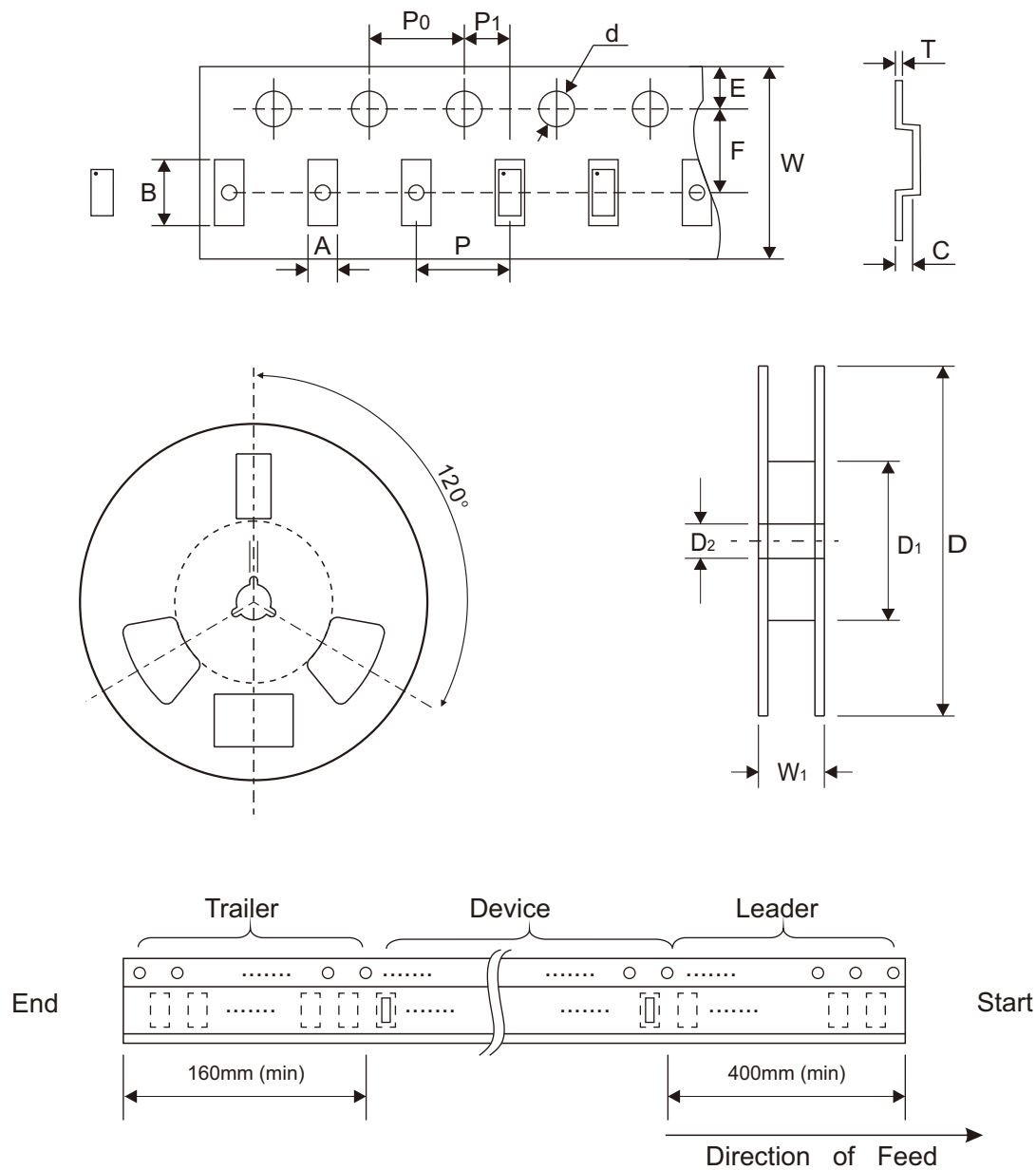


Fig.6 - 5/50ns EFT Waveform (IEC 61000-4-4)



Reel Taping Specification



DFN2510P10	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.20 ± 0.05	2.70 ± 0.05	0.70 ± 0.05	$1.50 + 0.10 - 0.00$	178 ± 1.00	54.50 ± 0.50	14.30 ± 0.20
	(inch)	0.047 ± 0.002	0.106 ± 0.002	0.028 ± 0.002	$0.059 + 0.004 - 0.000$	7.008 ± 0.039	2.146 ± 0.020	0.563 ± 0.008

DFN2510P10	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.05	4.00 ± 0.05	2.00 ± 0.05	0.22 ± 0.03	$8.00 + 0.30 - 0.10$	12.40 ± 0.50
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.002	0.157 ± 0.002	0.079 ± 0.002	0.009 ± 0.001	$0.315 + 0.012 - 0.004$	0.488 ± 0.020

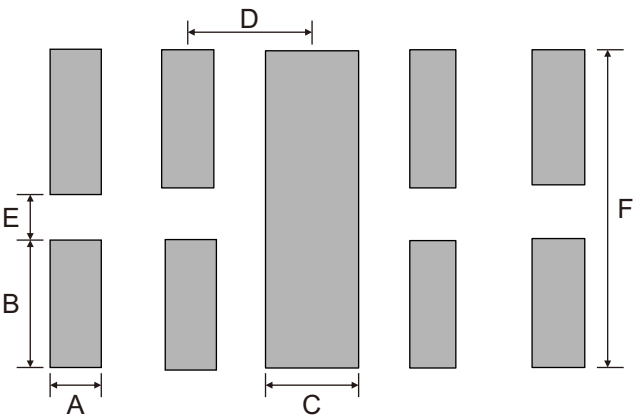
Marking Code

Part Number	Marking Code
CPDVR0524P-HF	0524P



Suggested P.C.B. PAD Layout

SIZE	DFN2510P10	
	(mm)	(inch)
A	0.20	0.008
B	0.60	0.024
C	0.40	0.016
D	0.50	0.020
E	0.20	0.008
F	1.40	0.055



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DFN2510P10	3,000	7