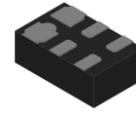


CPDU06R5V0UP-HF

RoHS Device

Halogen Free



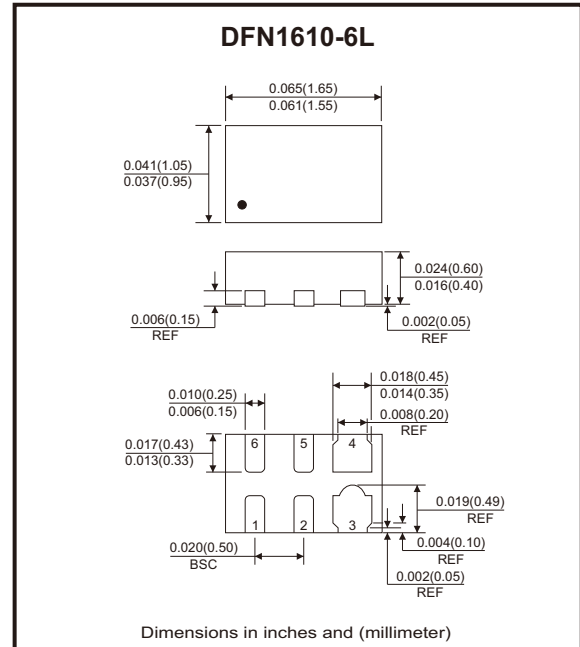
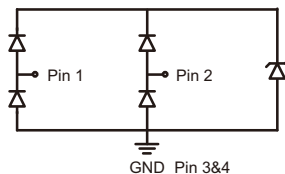
Features

- Protects I/O Port.
- Low clamping voltage.
- Low leakage.
- Low capacitance.
- Uni-directional devices.

Mechanical data

- Case: DFN1610-6L package.
- Mounting position: Any.

Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu s$	P_{PP}	36	W
Peak pulse current	$T_P = 8/20\mu s$	I_{PP}	3	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	±20	kV
Lead soldering temperature		T_L	260 (10 sec)	°C
Operating temperature range		T_J	-55 to +150	°C
Storage temperature range		T_{STG}	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse working voltage (Note 2)		V_{RWM}			5	V
Reverse breakdown voltage (Note 2)	$I_T = 1mA$	V_{BR}	6			V
Reverse leakage current (Note 2)	$V_{RWM} = 5V$	I_R			1	μA
Diode forward voltage	$I_F = 15mA$	V_F		0.85	1.2	V
Clamping voltage (Note 2)	$I_{PP} = 1A, t_p = 8/20\mu s$	V_C		8.7		V
	$I_{PP} = 3A, t_p = 8/20\mu s$	V_C		10.7	12	V
Junction capacitance (Note 2)	$V_R = 0V, f = 1MHz$	C_J		0.5	0.75	pF

Note: 1. Junction capacitance is measured in $V_R=0, f=1MHz$.

2. Any I/O Pin to Ground.

Typical Rating and Characteristic Curves (CPDU06R5V0UP-HF)

Fig.1 - Pulse Waveform

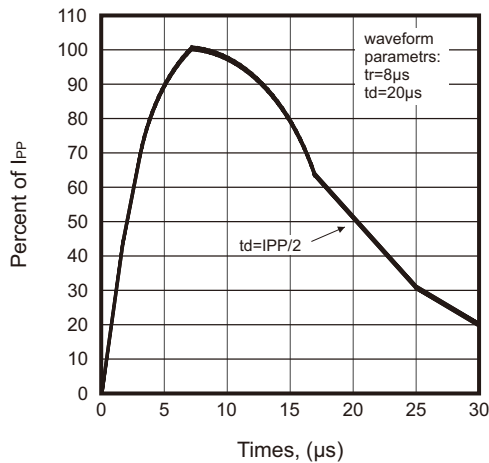


Fig.2 - Non-Repetitive Peak Power vs. Pulse Time

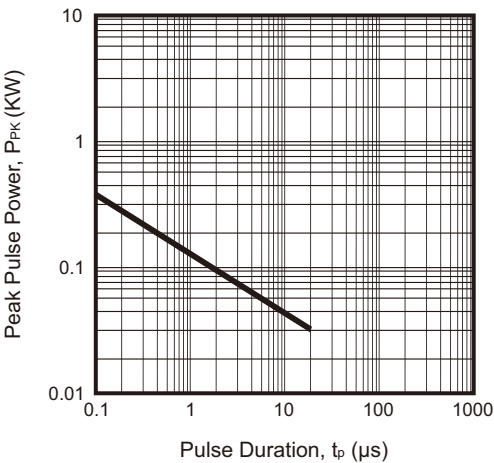
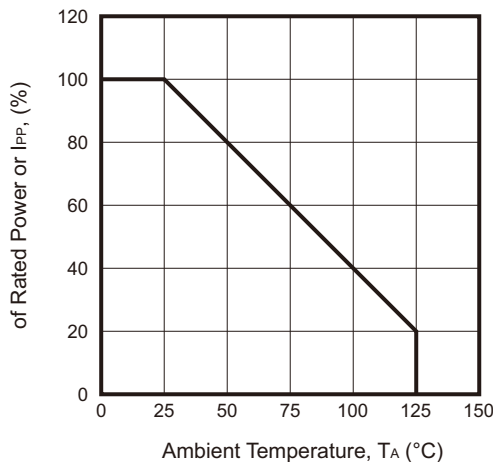
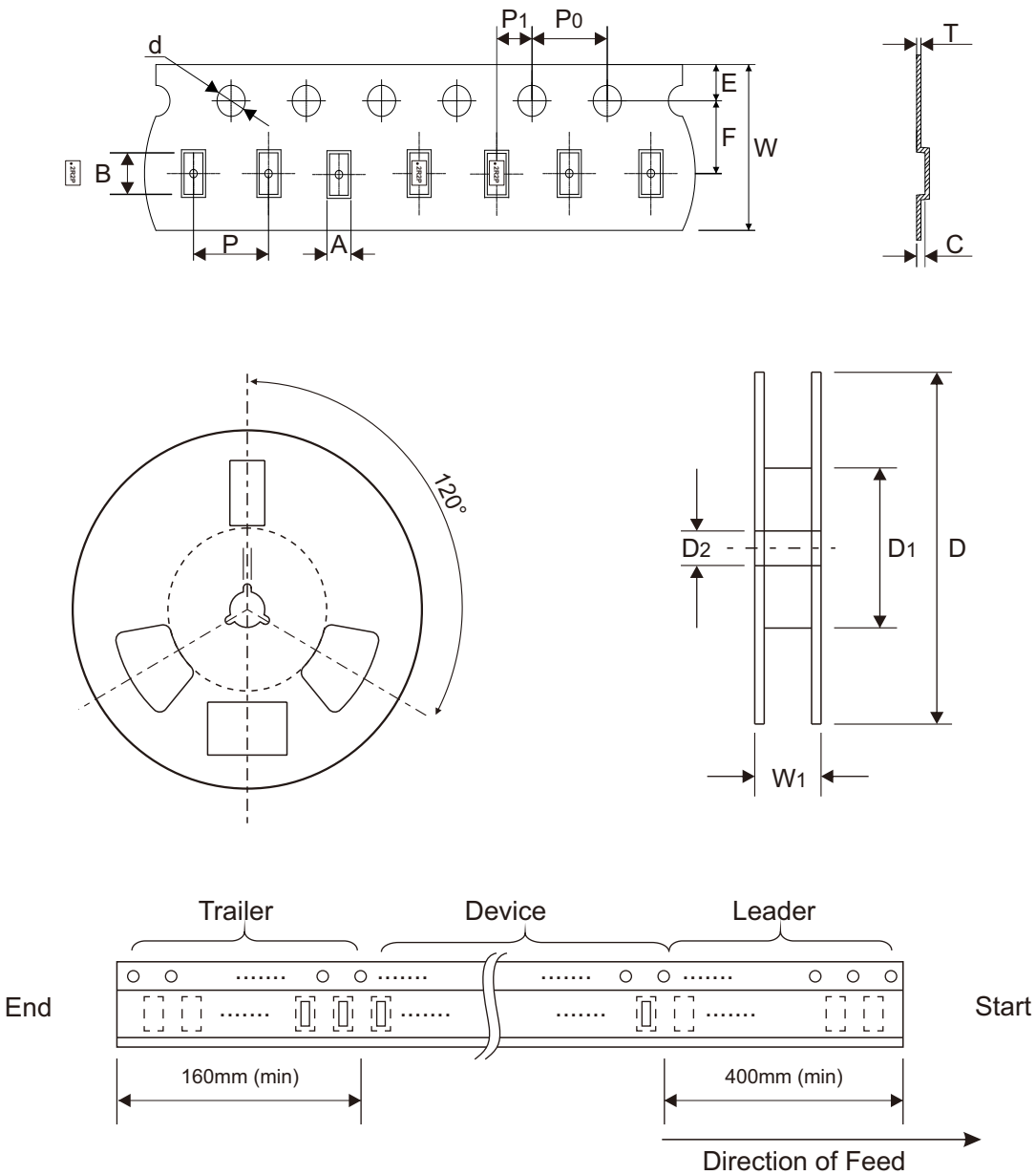


Fig.3 - Power Derating Curve



Reel Taping Specification



DFN1610 -6L	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.20 ± 0.10	1.75 ± 0.10	0.85 ± 0.10	1.50 ± 0.10	178.00 ± 1.00	55.00 ± 1.00	13.00 ± 1.00
	(inch)	0.047 ± 0.004	0.069 ± 0.004	0.033 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.165 ± 0.039	0.512 ± 0.039

DFN1610 -6L	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.20 ± 0.05	8.00 ± 0.10	15.80 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.008 ± 0.002	0.315 ± 0.004	0.622 ± 0.039

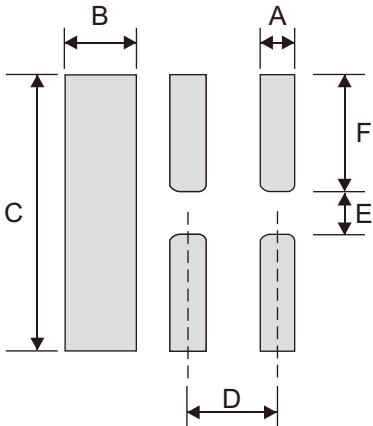
Marking Code

Part Number	Marking Code
CPDU06R5V0UP-HF	2R2P



Suggested P.C.B. PAD Layout

SIZE	DFN1610-6L	
	(mm)	(inch)
A	0.20	0.008
B	0.40	0.016
C	1.56	0.061
D	0.50	0.020
E	0.24	0.009
F	0.66	0.026



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DFN1610-6L	3,000	7