

CPDUT15VMUHT-HF

RoHS Device

Halogen Free



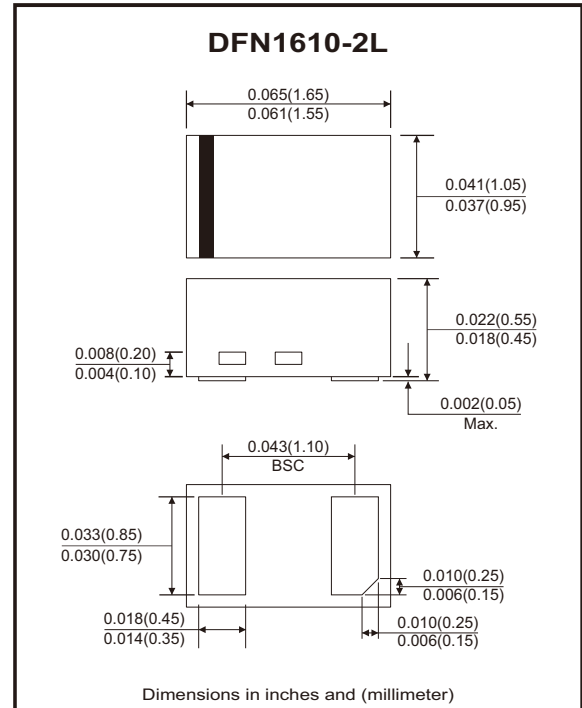
Features

- ESD/Surge protection for 1 line with Unidirectional.
- Protect one I/O line or one power line.
- Fast turn-on and low clamping voltage.
- IEC 61000-4-2 (ESD) ± 30 kV (air/contact)
- IEC 61000-4-4 (EFT) 80A (5/50ns)
- IEC 61000-4-5 (Lightning) 60A (8/20 μ s)

Mechanical data

- Case: DFN1610-2L package, molded plastic.
- Polarity: Indicated by cathode band.
- 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 μ s	P _{PP}	1800	W
Peak pulse current	T _P = 8/20 μ s	I _{PP}	60	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	± 30	kV
Operating temperature range		T _J	-55 to +125	°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
Working peak reverse voltage		V _{RWM}			15	V
Forward voltage	I _F = 15mA	V _F	0.6		1.2	V
Reverse leakage current	V _{RWM} = 15V	I _R			1	μ A
Breakdown voltage	I _T = 1mA	V _{BR}	18		21	V
Clamping voltage	I _{PP} = 40A, T _P = 8/20 μ s	V _C		21		V
	I _{PP} = 60A, T _P = 8/20 μ s	V _C		27	30	
Clamping voltage	TLP = 16A, T _P = 100ns	V _C		17.4		V
Junction capacitance	V _R = 0V, f = 1MHz	C _J		336		pF

Typical Rating and Characteristic Curves (CPDUT15VMUHT-HF)

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

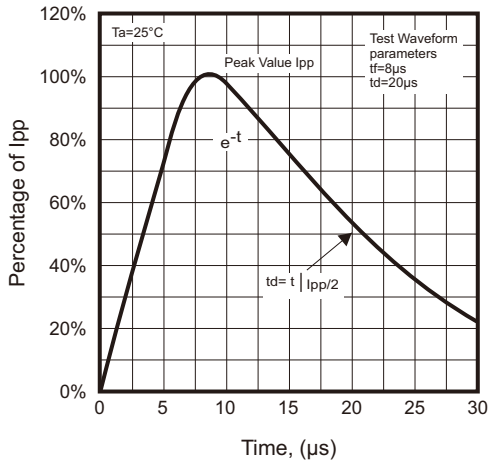


Fig.2 - Power Rating Derating Curve

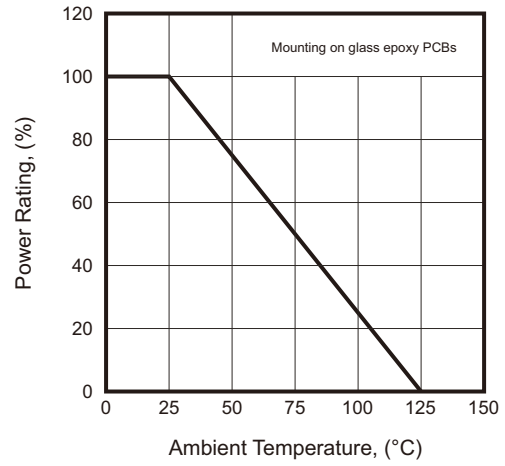


Fig.3 - Typical Clamping Voltage vs. Peak Pulse Current

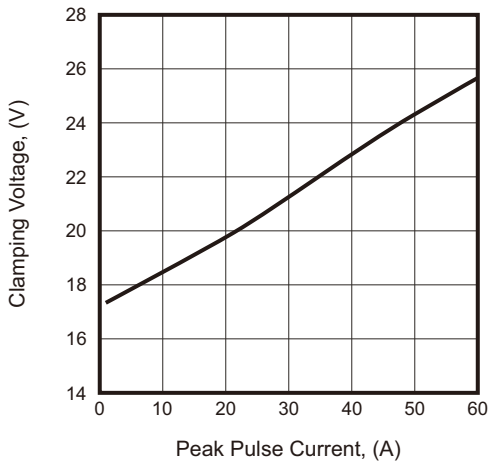


Fig.4 - Typical Capacitance Between Terminals Characteristics

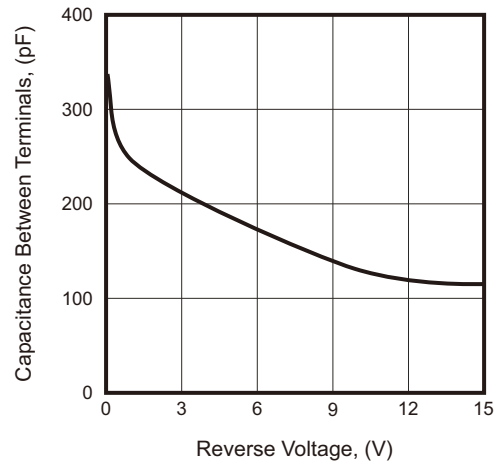
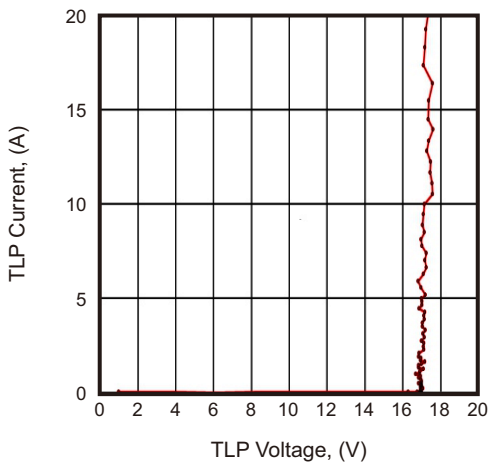
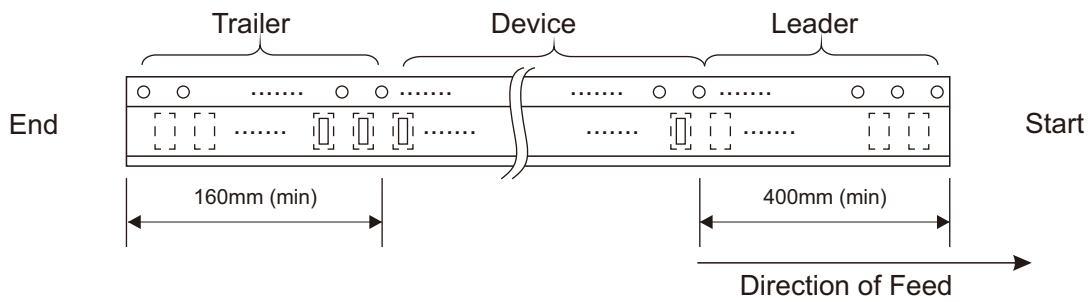
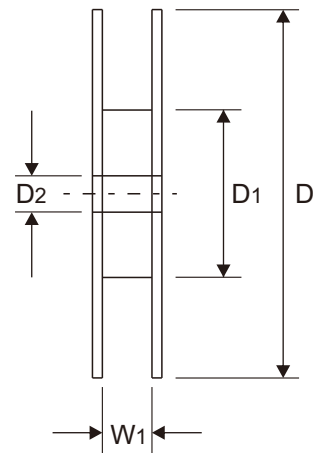
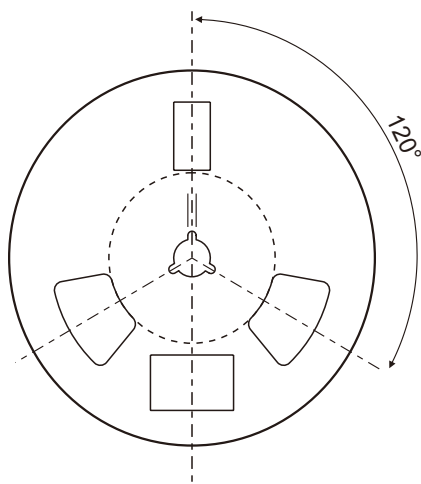
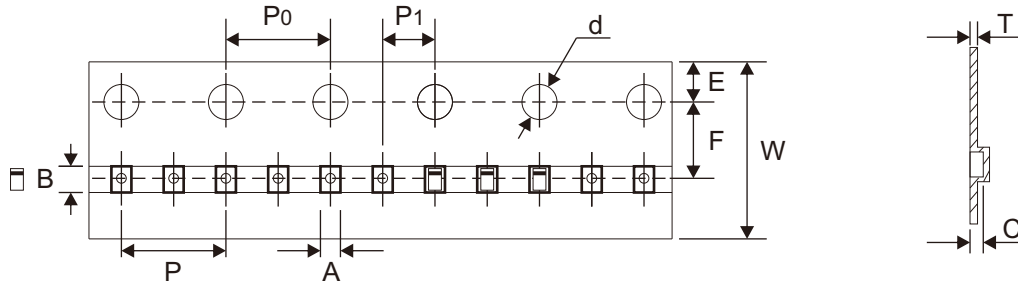


Fig.5 - TLP- Positive Pulse



Reel Taping Specification



DFN1610 -2L	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.20 ± 0.15	1.84 ± 0.11	0.80 + 0.15 - 0.22	1.50 + 0.15 - 0.10	181.00 Max	55.00 ± 5.00	13.00 + 0.50 - 0.20
	(inch)	0.047 ± 0.006	0.072 ± 0.004	0.031 + 0.006 - 0.009	0.059 + 0.006 - 0.004	7.126 Max	2.165 ± 0.197	0.512 + 0.020 - 0.008

DFN1610 -2L	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 ± 0.05	0.215 ± 0.065	8.00 + 0.30 - 0.20	11.60 Max
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.003	0.315 + 0.012 - 0.008	0.457 Max

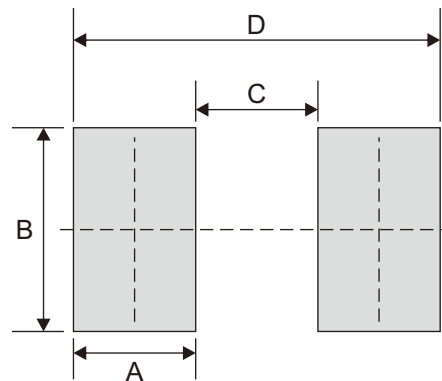
Marking Code

Park Number	Marking Code
CPDUT15VMUHT-HF	15P



Suggested P.C.B. PAD Layout

SIZE	DFN1610-2L	
	(mm)	(inch)
A	0.60	0.024
B	1.00	0.039
C	0.60	0.024
D	1.80	0.071



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DFN1610-2L	3,000	7