CPDUT4V8MUHT-HF

RoHS Device
Halogen Free

Features

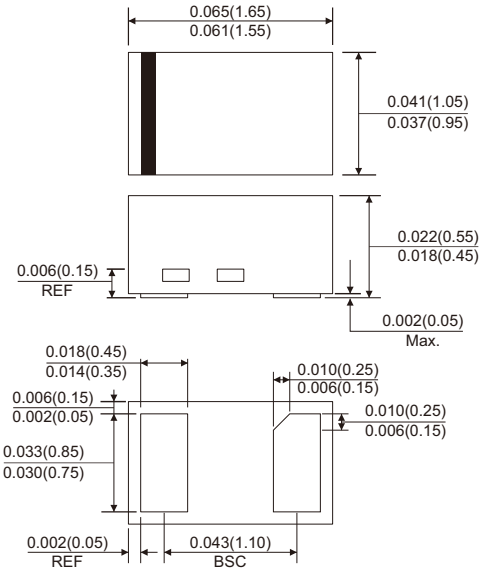
- ESD/EFT/Surge protection for 1 line with Unidirectional.
- High surge protection.
- Fast turn-on and low clamping voltage.
- IEC 61000-4-2 (ESD) ±30kV (air/contact)
  IEC 61000-4-4 (EFT) 80A (5/50ns)
  IEC 61000-4-5 (Lightning) 170A (8/20μs)

Mechanical data

- Case: DFN1610-2L package, molded plastic.
- Terminals: Tin plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

Circuit Diagram

DFN1610-2L



Dimensions in inches and (millimeter)

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

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	T_P = 8/20μs	P_{PP}	2720	W
Peak pulse current	T_P = 8/20μs	I_{PP}	170	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}			4.8	V
Forward voltage	I_F = 15mA	V_F	0.6		1	V
Reverse leakage current	V_{RWM} = 4.8V	I_R			500	nA
Breakdown voltage	I_T = 1mA	V_{BR}	4.0		6.5	V
Clamping voltage	I_{PP} = 80A, T_P = 8/20μs	V_C		9	11	V
	I_{PP} = 170A, T_P = 8/20μs	V_C		13	16	
Clamping voltage	TLP = 16A, T_P = 100ns	V_C		5.2		V
Junction capacitance	V_R = 0V, f = 1MHz	C_J		658		pF

Typical Rating and Characteristic Curves (CPDUT4V8MUHT-HF)

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

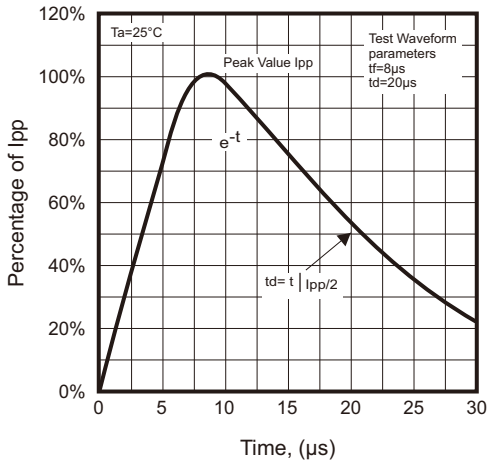


Fig.2 - Power Rating Derating Curve

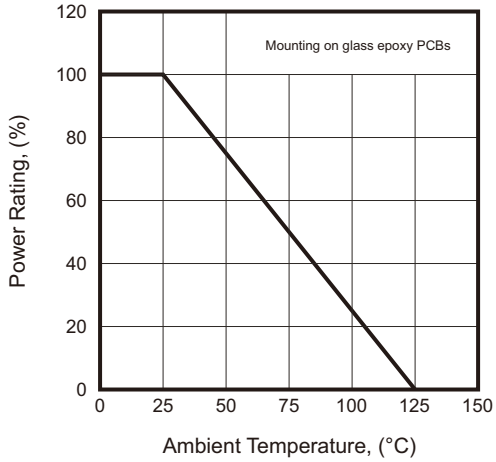


Fig.3 - Typical Clamping Voltage vs. Peak Pulse Current

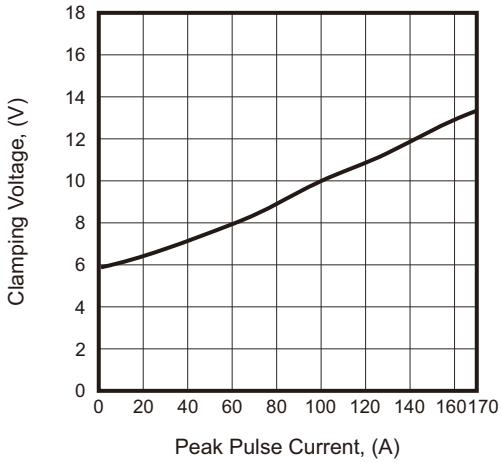


Fig.4 - Typical Capacitance Between Terminals Characteristics

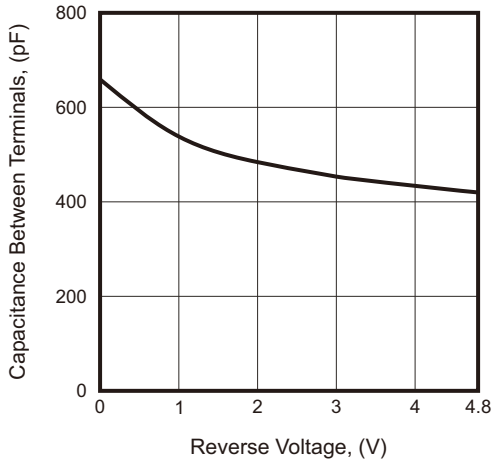
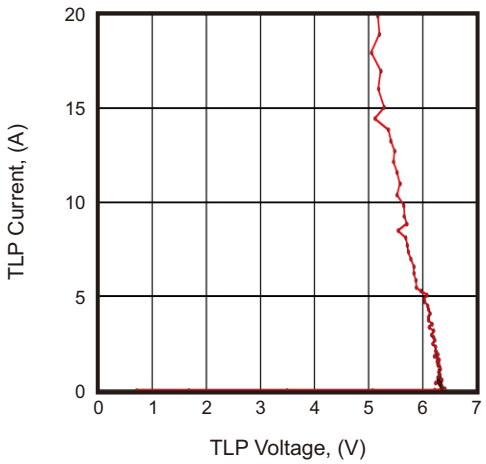
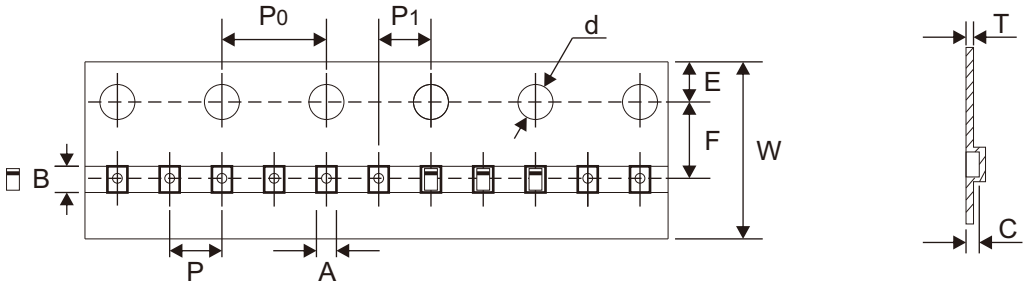
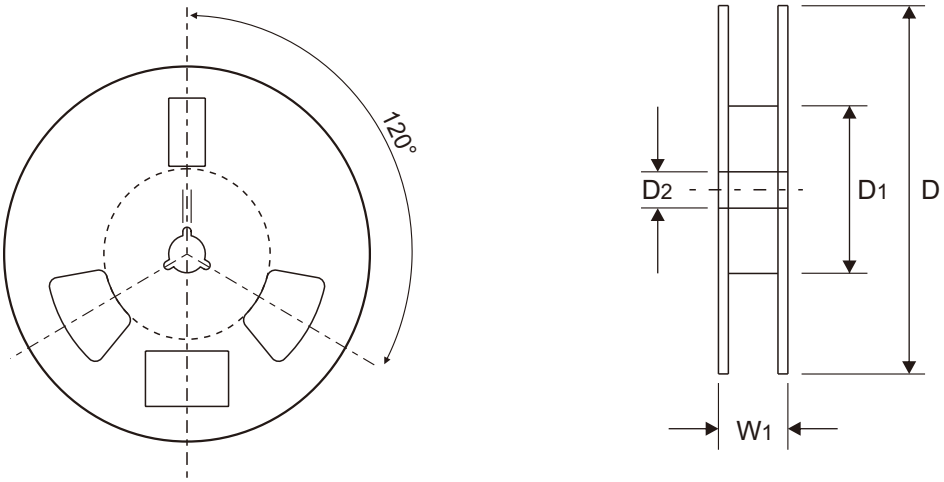


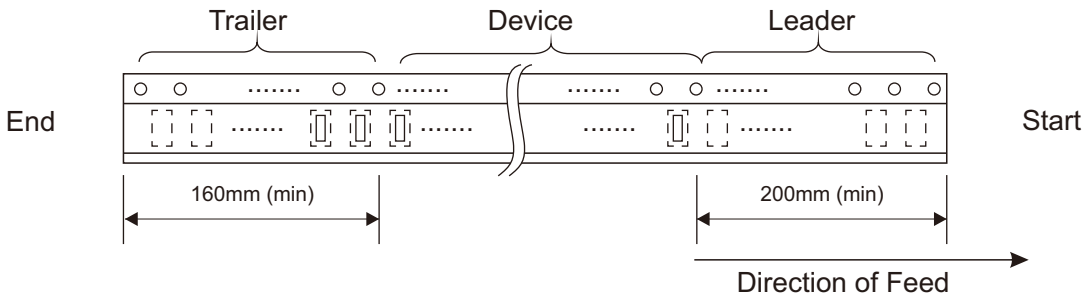
Fig.5 - TLP- Positive Pulse



Reel Taping Specification







	SYMBOL	A	B	C	d	D	D1	D2
DFN1610 -2L	(mm)	1.15 ± 0.05	1.75 + 0.08 − 0.05	0.63 ± 0.05	1.50 ± 0.10	178.50 ± 2.50	55.00 ± 5.00	13.00 + 0.50 − 0.20
	(inch)	0.045 ± 0.002	0.069 + 0.003 − 0.002	0.025 ± 0.002	0.059 ± 0.004	7.028 ± 0.098	2.165 ± 0.197	0.512 + 0.020 − 0.008

	SYMBOL	E	F	P	P0	P1	T	W	W1
DFN1610 -2L	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.05	8.00 + 0.30 − 0.10	14.85 Max
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.002	0.315 + 0.012 − 0.004	0.585 Max

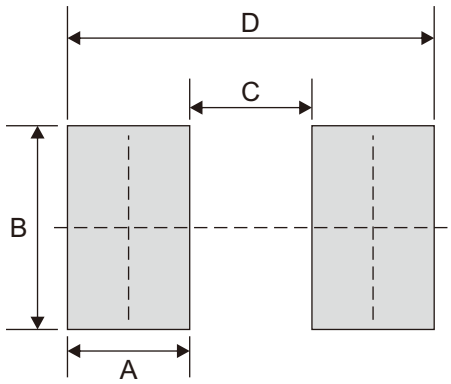
Marking Code

Part Number	Marking Code
CPDUT4V8MUHT-HF	M

X = Control code

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	10,000	7