

ESD24VDH-HF

RoHS Device

Halogen Free



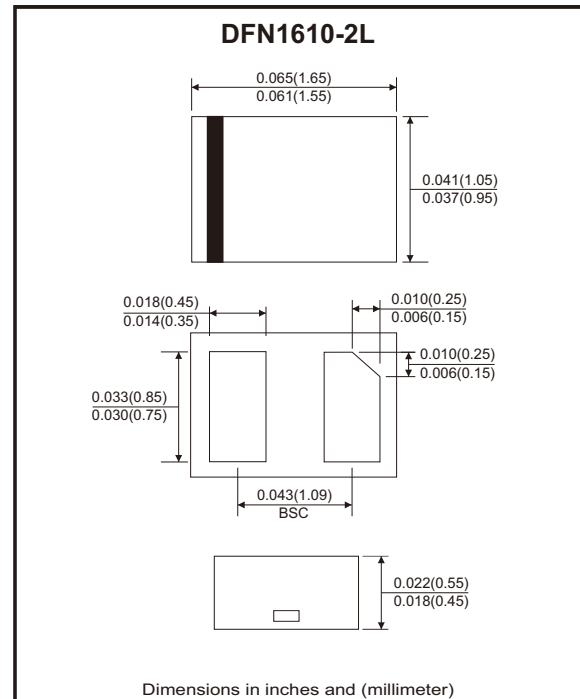
Features

- IEC 61000-4-2 (ESD) ± 30 kV (air/contact)
- Ultra-small package.
- Solid-state silicon technology.
- Low clamping voltage.

Mechanical data

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

Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
ESD capability	IEC 61000-4-2 (air) IEC 61000-4-2 (contact)	ESD	± 30	kV
Peak pulse power	$T_P = 8/20\mu s$	P_{PP}	1440	W
Peak pulse current	$T_P = 8/20\mu s$	I_{PP}	30	A
Operating junction 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
Reverse working voltage		V_{RWM}			24	V
Reverse breakdown voltage	$I_T = 1\text{mA}$	V_{BR}	26		29	V
Reverse leakage current	$V_{RWM} = 24\text{V}$	I_R			100	nA
Clamping voltage	$I_{PP} = 5\text{A}, T_P = 8/20\mu s$	V_C			38	V
	$I_{PP} = 30\text{A}, T_P = 8/20\mu s$				48	
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	C_J		200	220	pF

Typical Rating and Characteristic Curves (ESD24VDH-HF)

Fig.1 - 8/20 μ s Waveform per IEC 61000-4-5

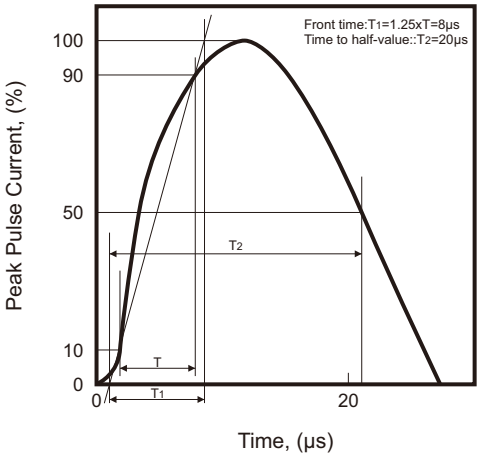


Fig.2 - Contact Discharge Current Waveform per IEC 61000-4-2

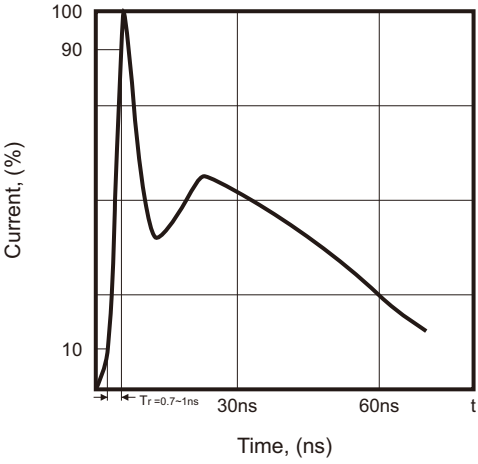


Fig.3 - Voltage vs Capacitance

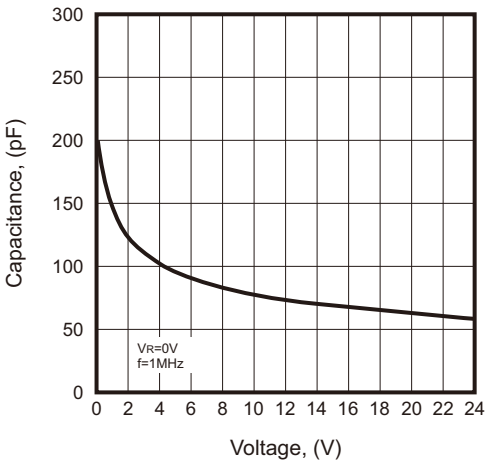
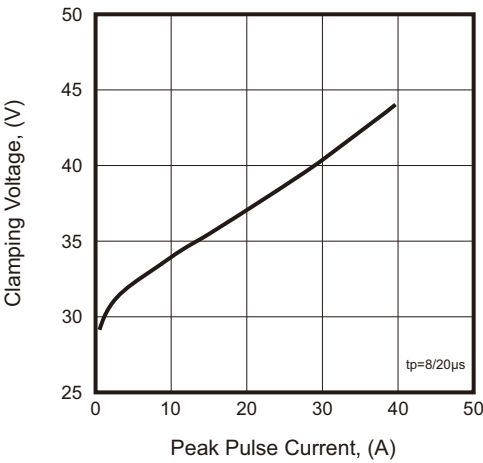
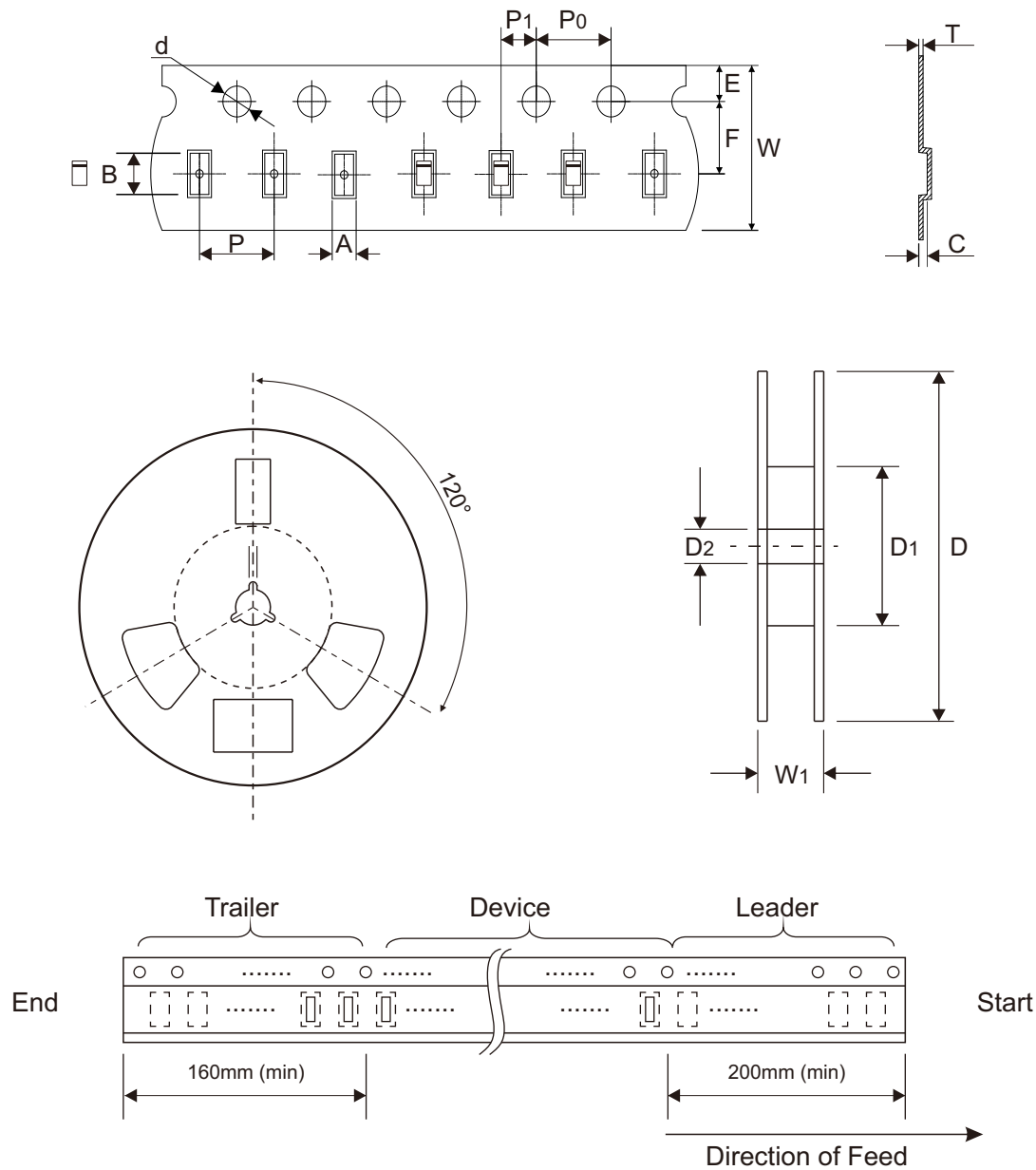


Fig.4 - Clamping Voltage vs Peak Pulse Current



Reel Taping Specification



DFN1610-2L	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.15 ± 0.05	1.75 ± 0.05	0.63 ± 0.05	1.55 ± 0.10	177.20 ± 0.20	54.30 ± 0.20	14.30 ± 0.20
	(inch)	0.045 ± 0.002	0.069 ± 0.002	0.025 ± 0.002	0.061 ± 0.004	6.976 ± 0.008	2.138 ± 0.008	0.563 ± 0.008

DFN1610-2L	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 + 0.20 - 0.10	12.30 ± 0.20
	(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 + 0.008 - 0.004	0.484 ± 0.008

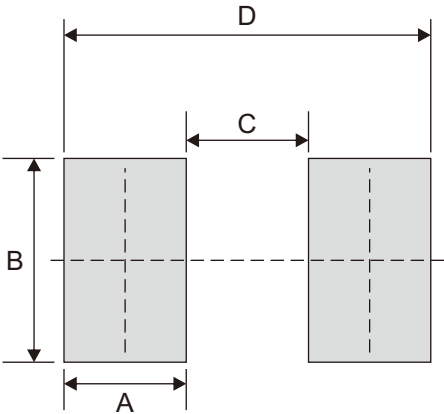
Marking Code

Part Number	Marking Code
ESD24VDH-HF	H24N



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