

CPDQT3V3U-HF

RoHS Device

Halogen Free



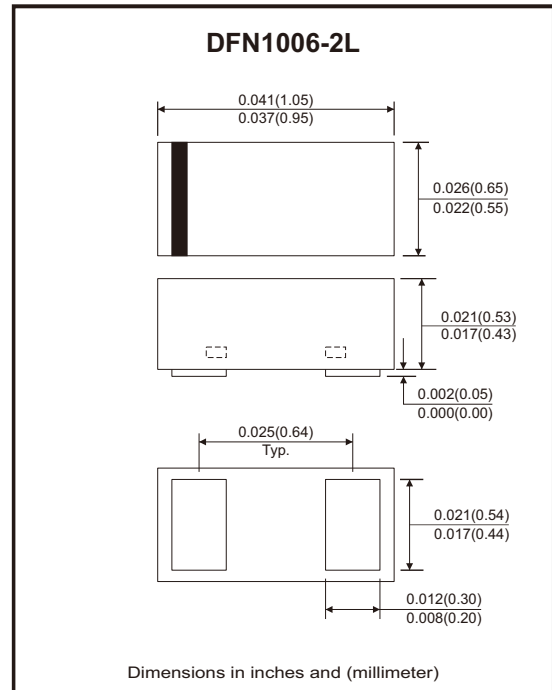
Features

- Low leakage.
- Uni-directional ESD protection.
- IEC 61000-4-2 (ESD) ± 30 kV (air/contact).

Mechanical data

- Case: DFN1006-2L package, molded plastic.
- Terminals: 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
Peak pulse power	$T_P = 8/20\mu s$	P_{PP}	104	W
Peak pulse current	$T_P = 8/20\mu s$	I_{PP}	8	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	± 30	kV
Total power Dissipation on FR-5 board (Note 1) @ $T_A = 25^\circ C$		P_D	200	mW
Operating junction and storage temperature range		T_J, T_{STG}	-55 to +150	$^\circ C$
Lead solder temperature-maximum (10 second duration)		T_L	260	$^\circ C$

Notes: 1. FR-5 = 1 x 0.75 x 0.62 in.

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Working peak reverse voltage		V_{RWM}			3.3	V
Breakdown voltage	$I_T = 1mA$	V_{BR}	5.6		8	V
Reverse leakage current	$V_{RWM} = 3.3V$	I_R			1	μA
Clamping voltage	$I_{PP} = 1A, T_P = 8/20\mu s$	V_C			9	V
	$I_{PP} = 5A, T_P = 8/20\mu s$	V_C			10.8	
	$I_{PP} = 8A, T_P = 8/20\mu s$	V_C			13	
Junction capacitance	$V_R = 0V, f = 1MHz$	C_J		38	50	pF

Typical Rating and Characteristic Curves (CPDQT3V3U-HF)

Fig.1 - Pulse Waveform

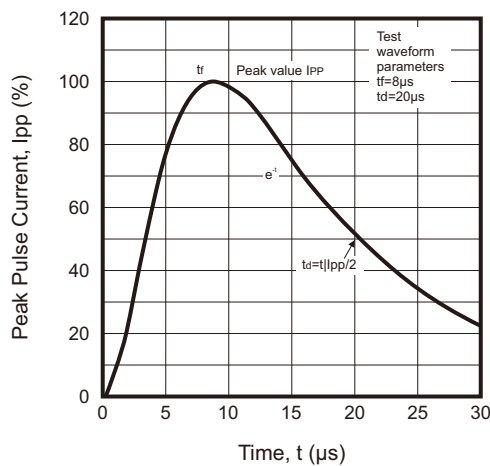


Fig.2 - Clamping Voltage vs. Peak Pulse Current

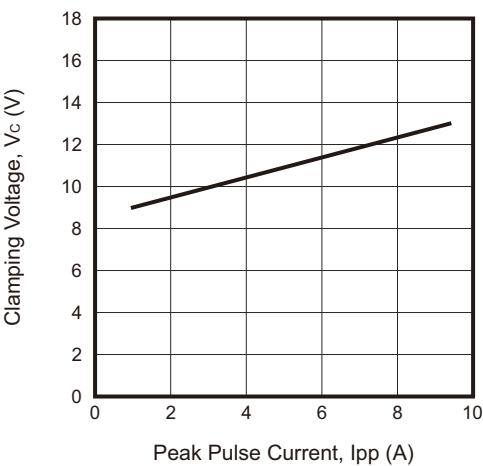


Fig.3 - Positive 8kV Contact per IEC 61000-4-2

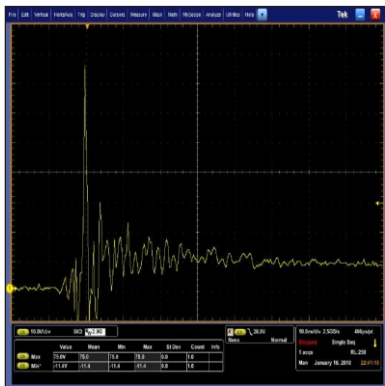
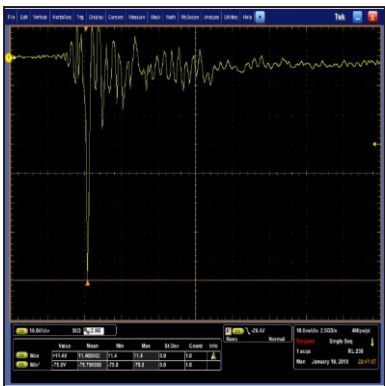
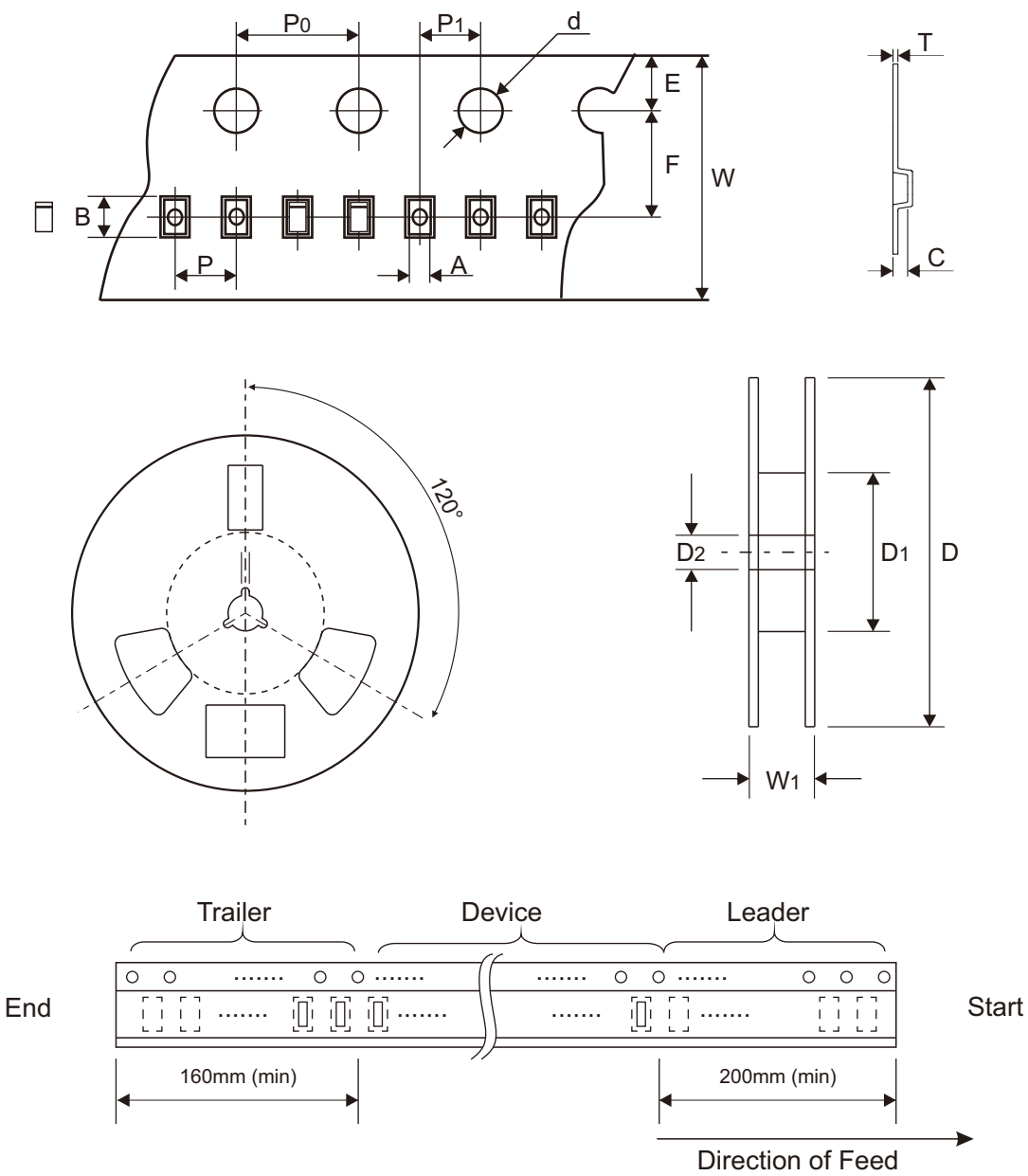


Fig.4 - Negative 8kV Contact per IEC 61000-4-2



Reel Taping Specification



DFN1006 -2L	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.69 ± 0.05	1.19 ± 0.05	0.63 ± 0.05	1.55 ± 0.05	178.00 ± 1.00	54.00 + 0.50 - 0.00	13.00 + 0.50 - 0.20
	(inch)	0.027 ± 0.002	0.047 ± 0.002	0.025 ± 0.002	0.061 ± 0.002	7.008 ± 0.039	2.126 + 0.020 - 0.000	0.512 + 0.020 - 0.008

DFN1006 -2L	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.05	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.02	8.00 ± 0.10	10.80 ± 1.50
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.002	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.001	0.315 ± 0.004	0.425 ± 0.059

Marking Code

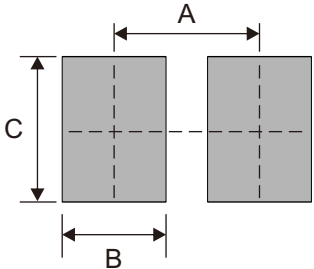
Part Number	Marking Code
CPDQT3V3U-HF	DE



X = Control code

Suggested P.C.B. PAD Layout

SIZE	DFN1006-2L	
	(mm)	(inch)
A	0.70	0.028
B	0.40	0.016
C	0.70	0.028



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DFN1006-2L	10,000	7