

CPDQT5V0ESPC-HF

RoHS Device
Halogen Free



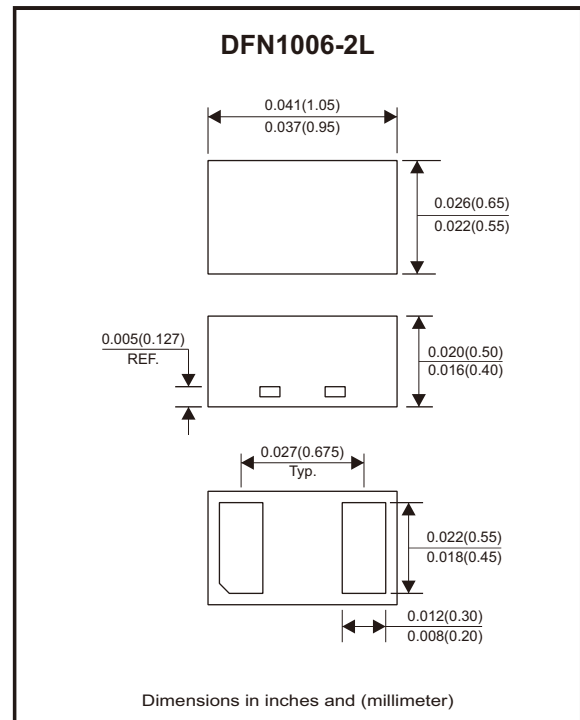
Features

- Low capacitance: 0.2pF (typ.).
- Reverse standoff voltage: 5V
- IEC 61000-4-2 (ESD air): ± 24 kV
IEC 61000-4-2 (ESD contact): ± 22 kV
IEC 61000-4-5 (Surge): 4A(8/20 μ s)

Mechanical data

- Case: DFN1006-2L standard package, molded plastic.
- Mounting position: Any.

Circuit Diagram



Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Electrostatic discharge voltage	IEC 61000-4-2(contact) IEC 61000-4-2(air)	ESD	± 22 ± 24	kV
Peak pulse power	$T_P = 8/20\mu\text{s}$	P_{PP}	85	W
Peak pulse current	IEC 61000-4-5, $T_P = 8/20\mu\text{s}$	I_{PP}	4	A
Operating junction temperature range		T_J	-55 to +125	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse standoff voltage		V_{RWM}			5	V
Breakdown voltage	$I_R = 1\text{mA}$	V_{BR}	7.4		9.6	V
Reverse leakage current	$V_{RWM} = 5\text{V}$	I_R		10	100	nA
Surge clamping voltage (8/20 μ s)	$I_{PP} = 1\text{A}$	V_C		10.8		V
	$I_{PP} = 4\text{A}$	V_C		20		
Dynamic resistance	$t_p = 10/100\text{ns}$	R_{DYN}		0.92		Ω
Junction capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_J		0.2	0.28	pF

Typical Rating and Characteristic Curves (CPDQT5V0ESPC-HF)

Fig.1 - TLP Curve

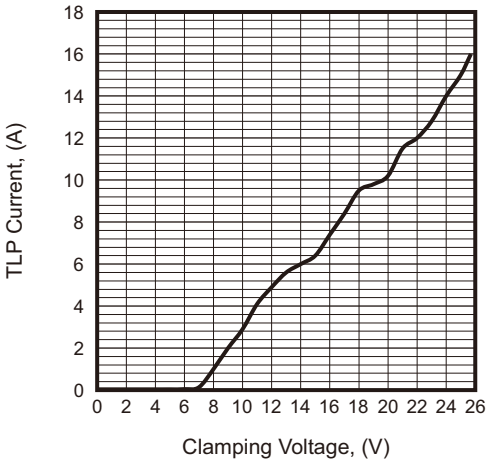


Fig.2 - Junction Capacitance

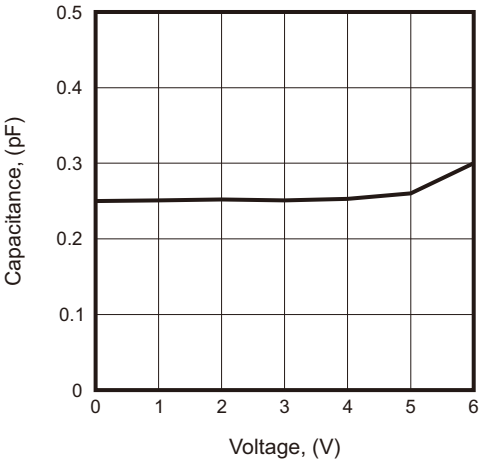
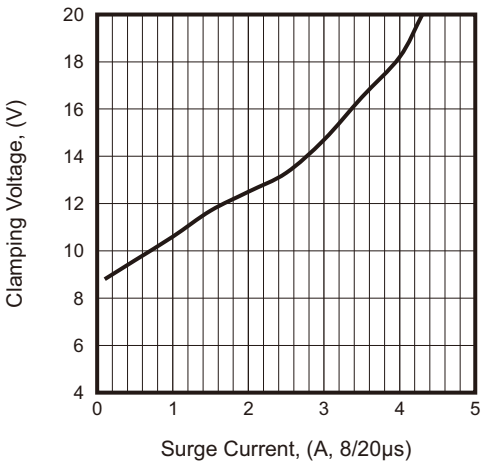
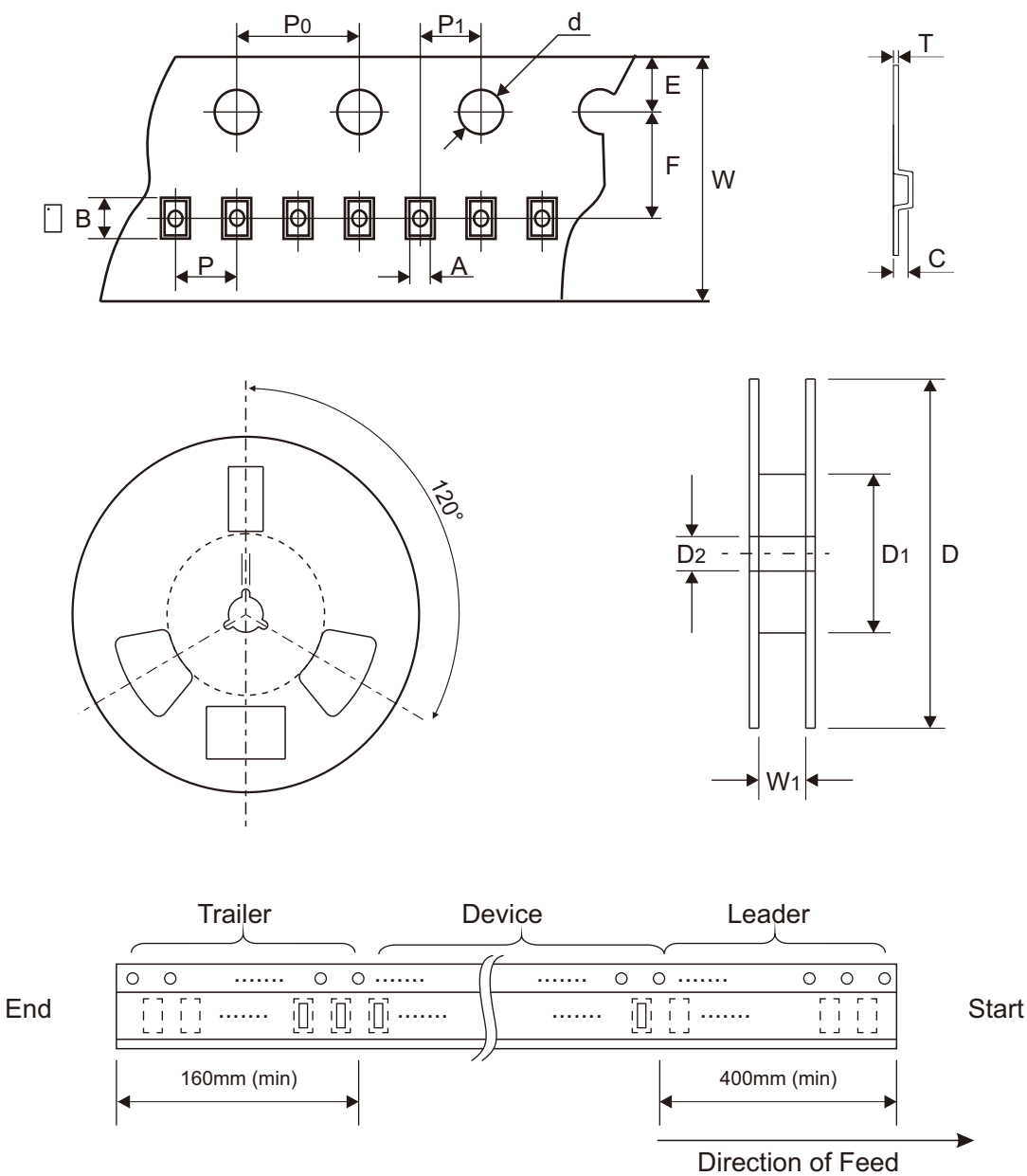


Fig.3 - Clamping Voltage vs Peak Pulse Current



Reel Taping Specification



DFN1006 -2L	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.69 ± 0.05	1.19 ± 0.05	0.66 ± 0.05	1.50 + 0.10	178.00 ± 1.00	54.50 ± 0.50	14.60 ± 0.20
	(inch)	0.027 ± 0.002	0.047 ± 0.002	0.026 ± 0.002	0.059 + 0.004	7.008 ± 0.039	2.146 ± 0.020	0.575 ± 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 + 0.30 - 0.10	9.50 ± 0.20
	(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 + 0.012 - 0.004	0.374 ± 0.008

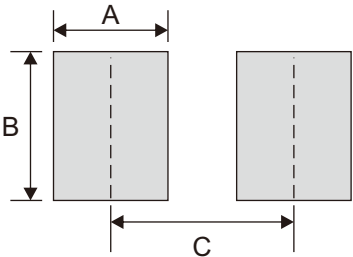
Marking Code

Part Number	Marking Code
CPDQT5V0ESPC-HF	St



Suggested P.C.B. PAD Layout

SIZE	DFN1006-2L	
	(mm)	(inch)
A	0.50	0.020
B	0.65	0.026
C	0.80	0.031



Standard Packaging

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