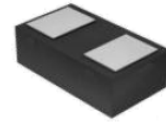


CPDQT5V0ASP-HF

RoHS Device
Halogen Free



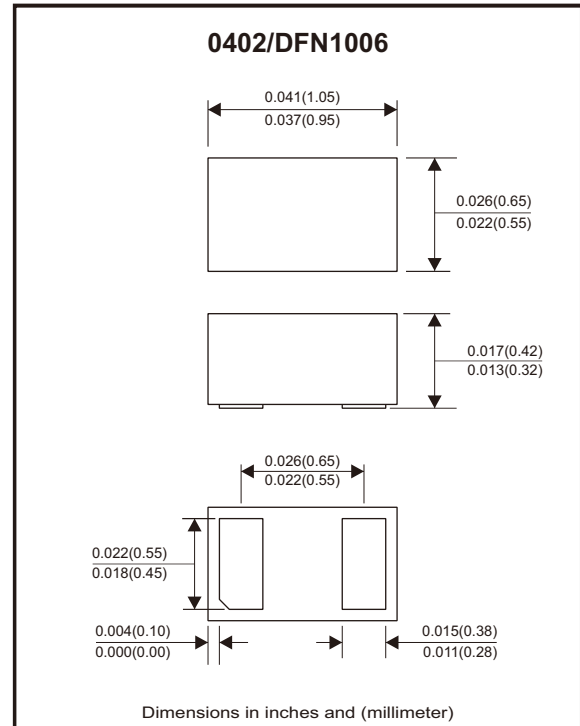
Features

- Ultral-low capacitance: 0.35pF (typ.).
- Reverse working voltage: 5V
- IEC 61000-4-2 (ESD air): $\pm 20\text{kV}$
IEC 61000-4-2 (ESD contact): $\pm 17\text{kV}$
IEC 61000-4-5 (surge): 4.5A (8/20 μs)

Mechanical data

- Case: 0402/DFN1006 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)	V_{ESD}	± 17 ± 20	kV
Peak pulse power	$T_P = 8/20\mu\text{s}$	P_{PP}	100	W
Peak pulse current	IEC 61000-4-5, $T_P = 8/20\mu\text{s}$	I_{PP}	4.5	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 working voltage		V_{RWM}			5	V
Breakdown voltage	$I_R = 1\text{mA}$	V_{BR}	6.0	8.5	9.5	V
Reverse leakage current	$V_{\text{RWM}} = 5\text{V}$	I_R			100	nA
Surge clamping voltage	$I_{\text{PP}} = 1\text{A}$, $T_P = 8/20\mu\text{s}$	V_C			13	V
	$I_{\text{PP}} = 4.5\text{A}$, $T_P = 8/20\mu\text{s}$	V_C			24	
Junction capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_J		0.35	0.45	pF

Rating and Characteristic Curves (CPDQT5V0ASP-HF)

Fig.1 - Clamping Voltage (TLP)

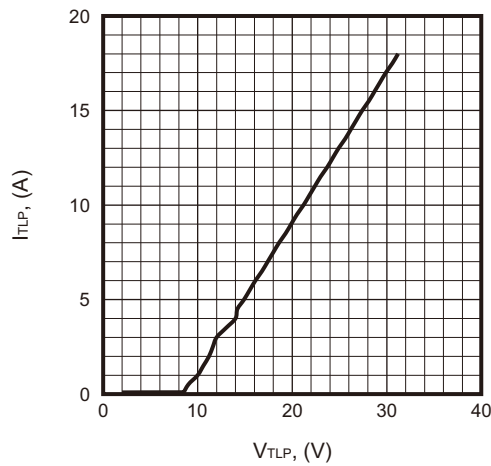


Fig.2 - Junction Capacitance

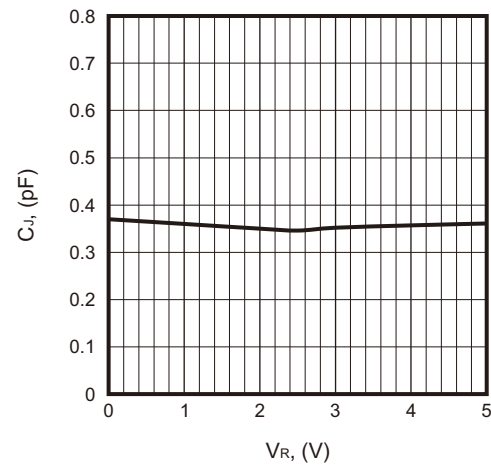
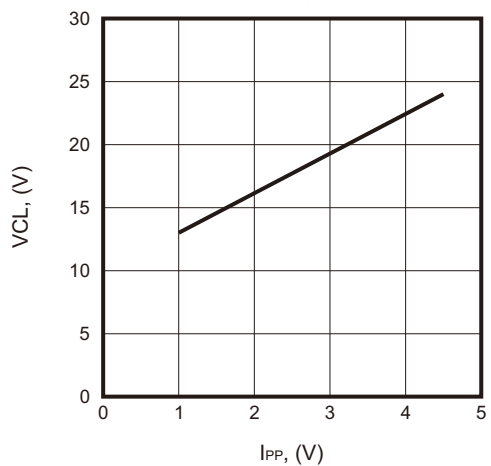
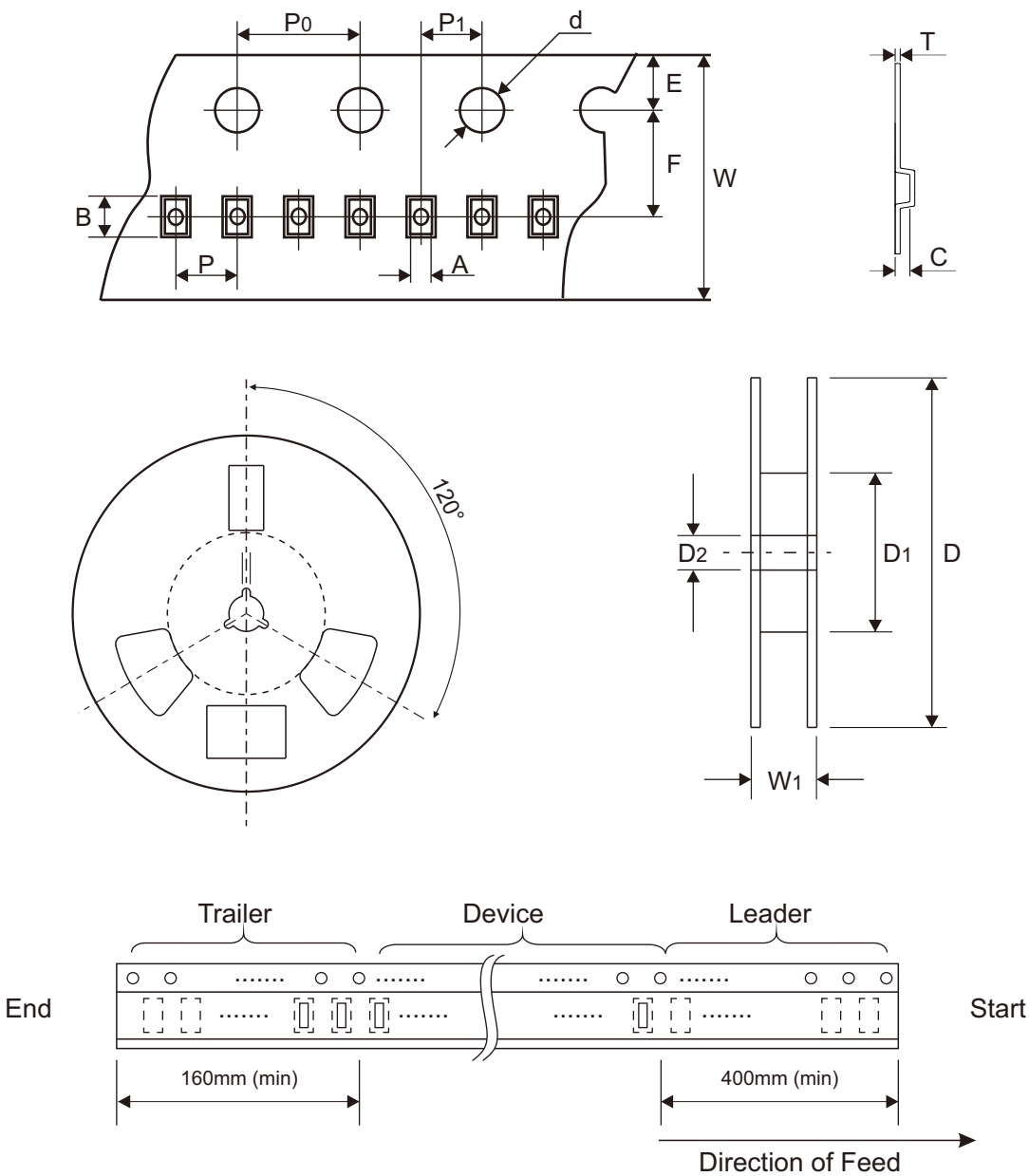


Fig.3 - Peak Pulse Power vs Clamping Voltage



Reel Taping Specification



0402/ DFN1006	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.70 ± 0.05	1.10 ± 0.05	0.45 ± 0.05	1.50 ± 0.05	178.00 ± 2.00	50.00 min.	13.00 ± 0.20
	(inch)	0.028 ± 0.002	0.043 ± 0.002	0.018 ± 0.002	0.059 ± 0.002	7.008 ± 0.079	1.969 min.	0.512 ± 0.008

0402/ DFN1006	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	9.90 max.
	(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	0.390 max.

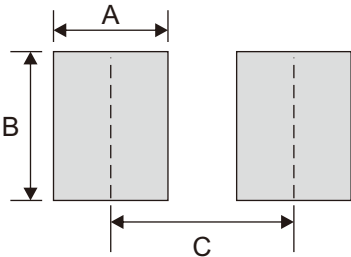
Marking Code

Part Number	Marking Code
CPDQT5V0ASP-HF	5F



Suggested P.C.B. PAD Layout

SIZE	0402/DFN1006	
	(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)
0402/DFN1006	10,000	7