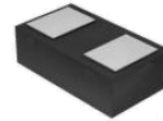


## CPDQT7V0-HF

**RoHS Device**  
**Halogen Free**



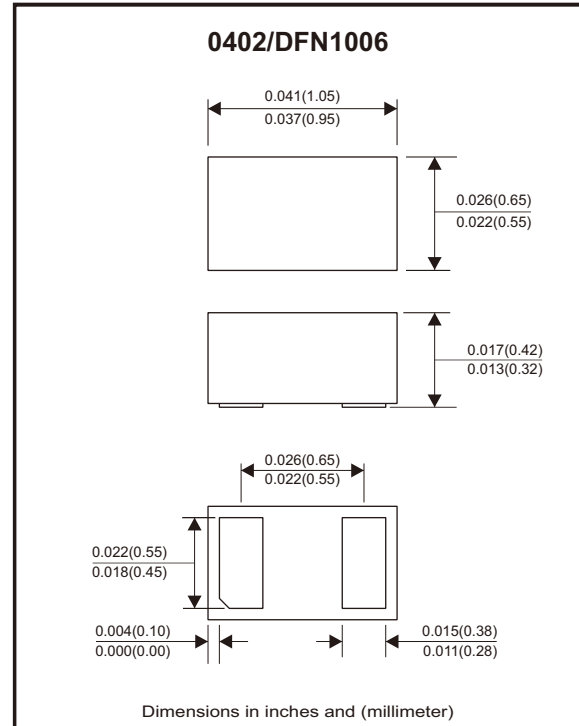
### Features

- Low capacitance: 15pF (typ.).
- Reverse standoff voltage: 7V
- IEC 61000-4-2 (ESD air):  $\pm 30$ kV  
IEC 61000-4-2 (ESD contact):  $\pm 30$ kV  
IEC 61000-4-5 (surge): 8A (8/20 $\mu$ s)

### 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)	$V_{ESD}$	$\pm 30$	kV
Peak pulse power	$T_P = 8/20\mu\text{s}$	$P_{PP}$	80	W
Peak pulse current	IEC 61000-4-5, $T_P = 8/20\mu\text{s}$	$I_{PP}$	8	A
Operating junction temperature range		$T_J$	-55 to +150	$^\circ\text{C}$
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	I/O to GND	$V_{RWM}$			7	V
Breakdown voltage	$I_R = 1\text{mA}$ , I/O to GND	$V_{BR}$	7.5	8.0	8.6	V
Reverse leakage current	$V_{RWM} = 7\text{V}$ , I/O to GND	$I_R$			0.1	$\mu\text{A}$
Surge clamping voltage	$I_{PP} = 1\text{A}$ , $T_P = 8/20\mu\text{s}$ , I/O to GND (positive)	$V_C$			8	V
	$I_{PP} = 8\text{A}$ , $T_P = 8/20\mu\text{s}$ , I/O to GND (positive)	$V_C$			10	
TLP dynamic resistance	I/O to GND (positive)	$R_{DYN}$		0.19		$\Omega$
Junction capacitance	$V_R = 0\text{V}$ , $f = 1\text{MHz}$ , I/O to GND	$C_J$		15	20	pF

## Rating and Characteristic Curves (CPDQT7V0-HF)

Fig.1 - Clamping Voltage (TLP)

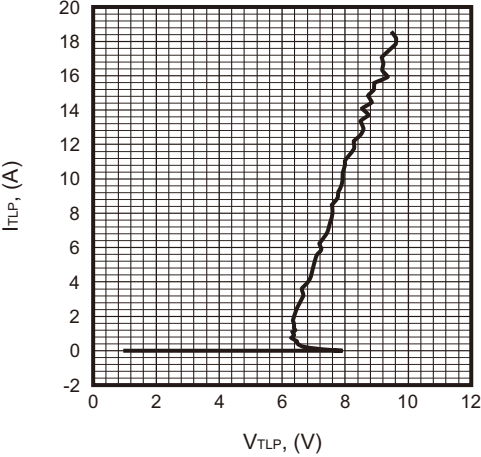
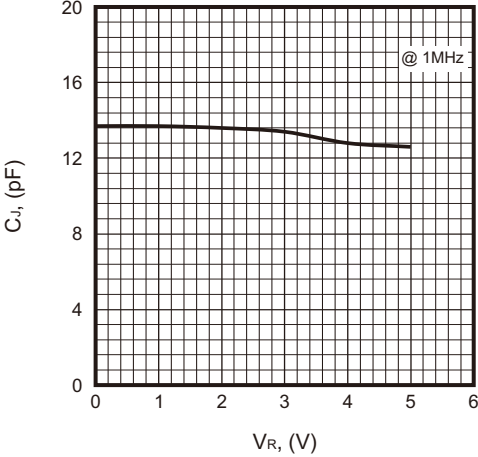
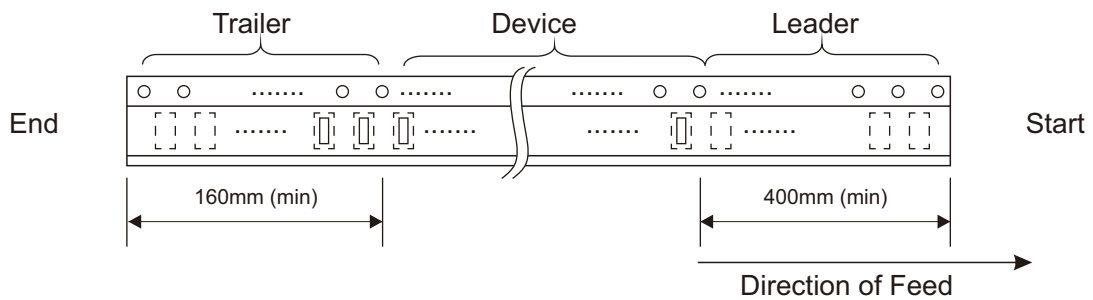
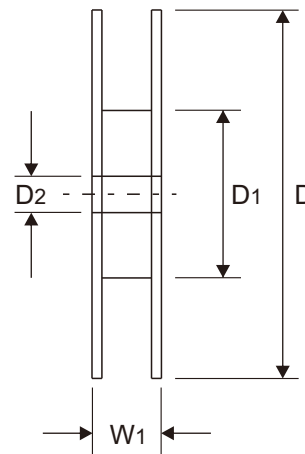
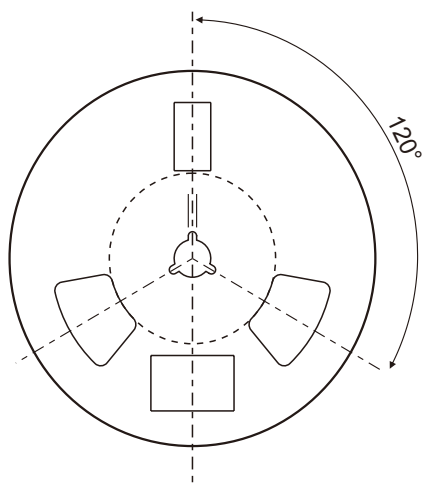
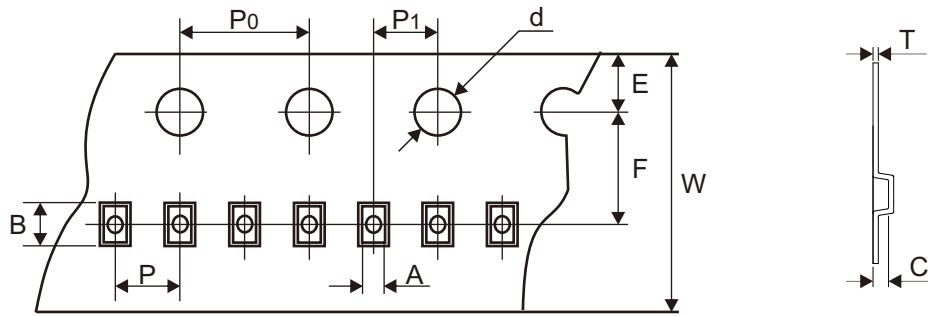


Fig.2 - Junction Capacitance



## 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.

Company reserves the right to improve product design , functions and reliability without notice.

REV:A

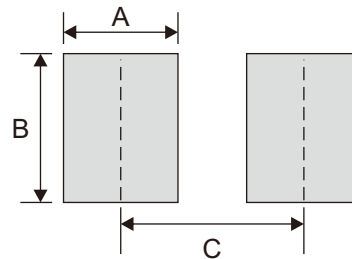
## Marking Code

Part Number	Marking Code
CPDQT7V0-HF	.T2



## 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