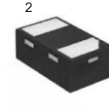


CPDQT5V0E-HF

RoHS Device

Halogen Free



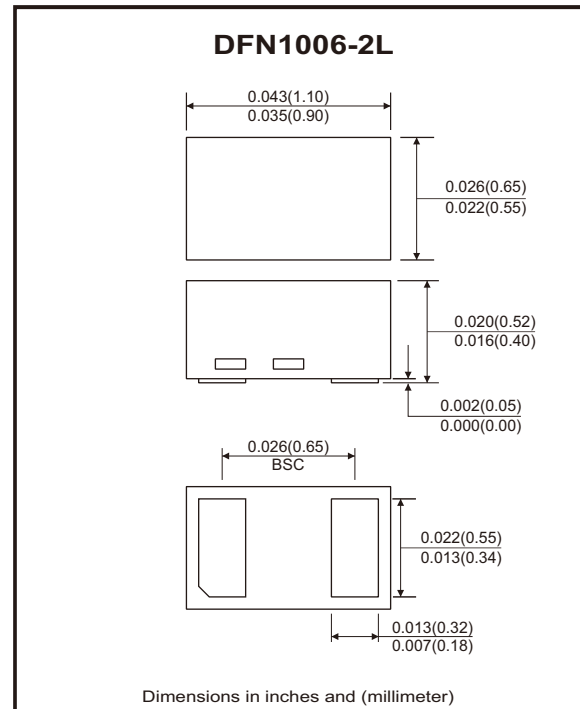
Features

- 2-Pin lead-less package.
- Low clamping voltage.
- Low leakage current.
- Working voltage: 5V.
- IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ (air/contact)
- IEC 61000-4-5(Lightning) 8A(8/20 μs).

Mechanical data

- Case: DFN1006-2L package.
- Terminals: Matte tin plated, solderable per MIL-STD-750, method 2026.
- Mounting position: Any.

Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu\text{s}$	P_{PP}	96	W
Peak pulse current	$T_P = 8/20\mu\text{s}$	I_{PP}	8	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	± 30	kV
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}			5	V
Reverse breakdown voltage	$I_T = 1\text{mA}$	V_{BR}	5.5		9	V
Reverse leakage current	$V_R = 5\text{V}$	I_R			0.1	μA
Clamping voltage	$I_{PP} = 1\text{A}$, $t_p = 8/20\mu\text{s}$	V_C			8	V
	$I_{PP} = 8\text{A}$, $t_p = 8/20\mu\text{s}$	V_C			12	V
Junction capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_J		12	15	pF

Typical Rating and Characteristic Curves (CPDQT5V0E-HF)

Fig.1 - Power Rating Derating Curve

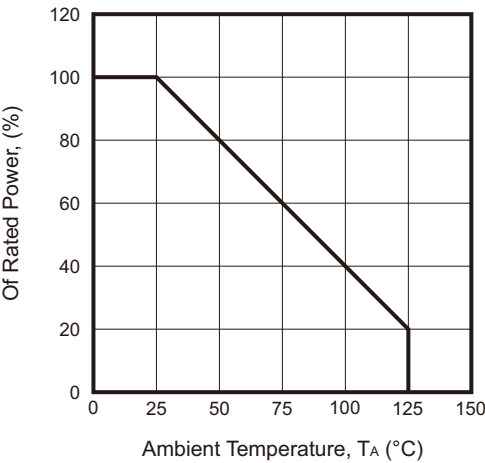


Fig.2 - Pulse Waveform

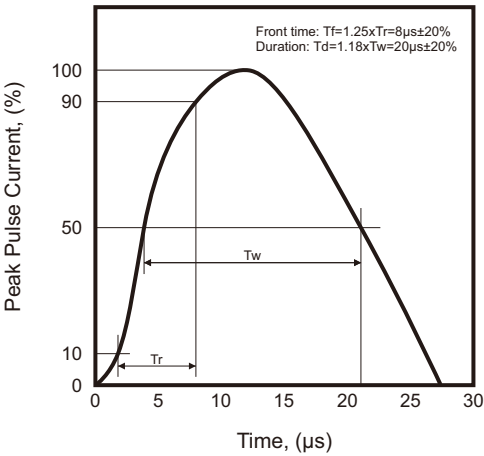


Fig.3 - Capacitance Between Terminals Characteristics

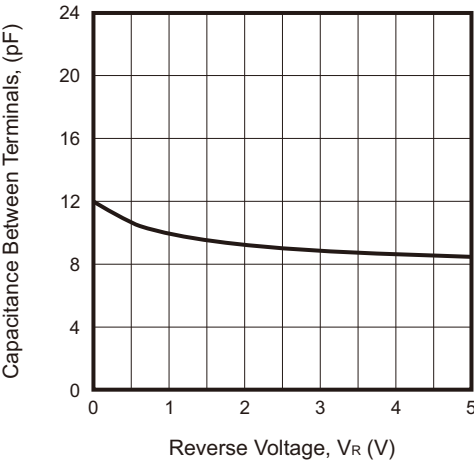
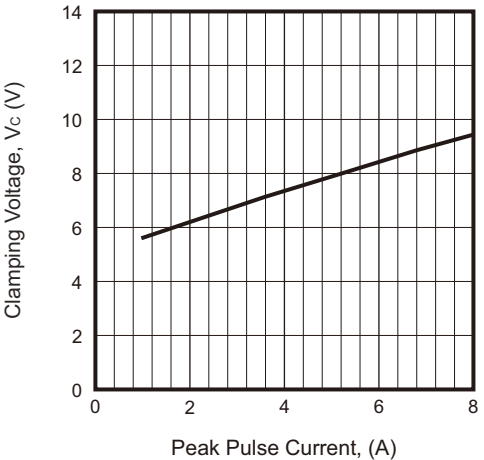
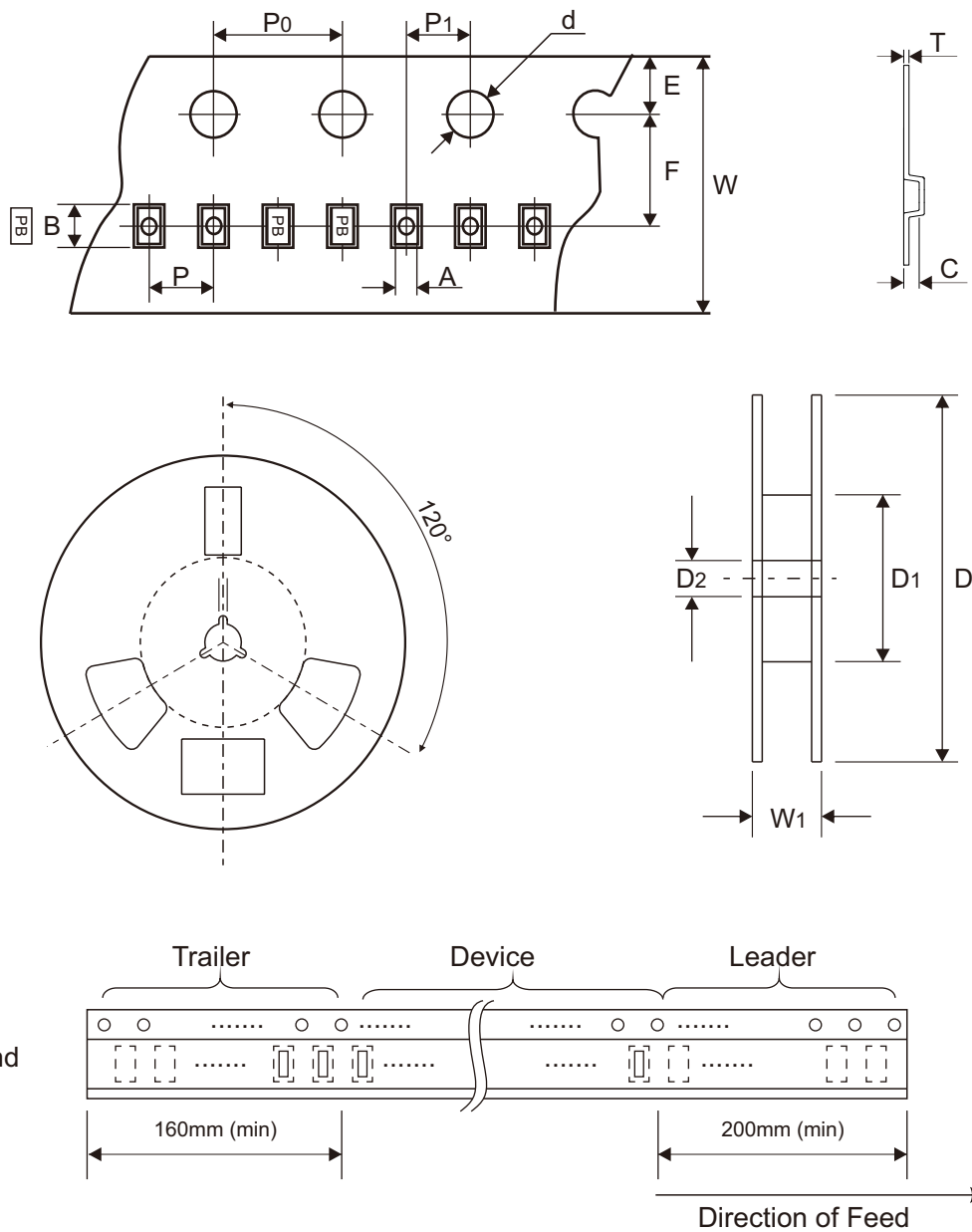


Fig.4 - Clamping Voltage vs. Peak Pulse Current



Reel Taping Specification



DFN1006 -2L	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.70 ± 0.05	1.10 ± 0.05	0.50 ± 0.05	1.50 + 0.10 - 0.00	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.028 ± 0.002	0.043 ± 0.002	0.020 ± 0.002	0.059 + 0.004 - 0.000	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

DFN1006 -2L	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	2.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.20 ± 0.02	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.079 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.008 ± 0.001	0.315 + 0.012 - 0.004	0.484 ± 0.039

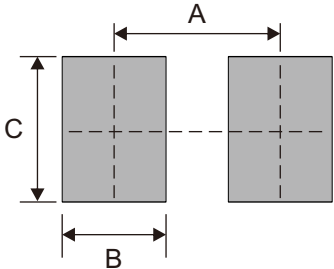
Marking Code

Part Number	Marking Code
CPDQT5V0E-HF	PB



Suggested P.C.B. PAD Layout

SIZE	DFN1006-2L	
	(mm)	(inch)
A	0.80	0.031
B	0.50	0.020
C	0.70	0.028



Standard Packaging

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