

## CPDZC5V0C-HF

### RoHS Device

### Halogen Free



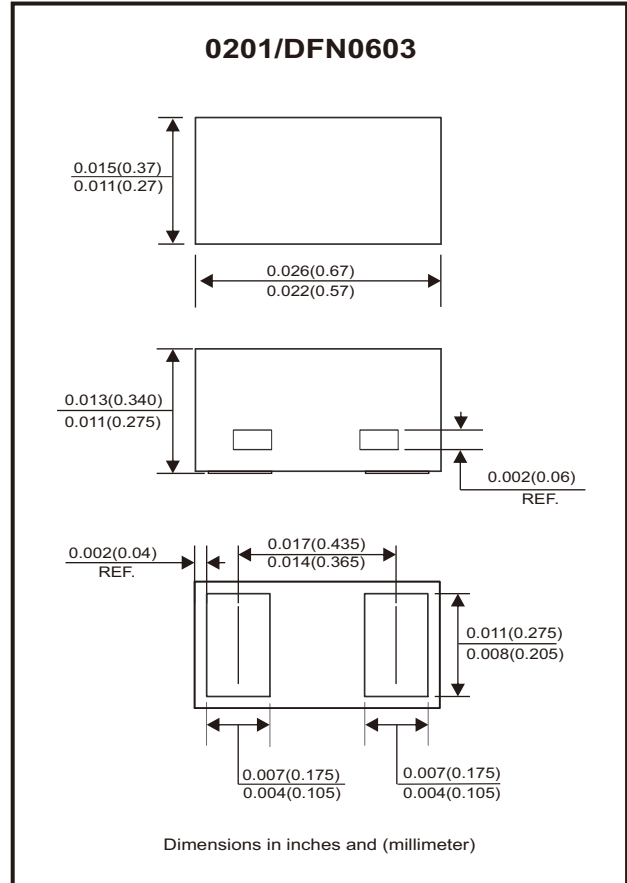
### Features

- Bi-directional ESD protection.
- IEC61000-4-2 Level 4 ESD protection.
- Surface mount package.
- Ultra small SMD package:0201
- High component density.
- Low clamping voltage.
- Low leakage.

### Mechanical data

- Case: 0201/DFN0603 package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Mounting position: Any.

### Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	T <sub>P</sub> = 8/20μs	P <sub>PP</sub>	30	W
Peak pulse current	T <sub>P</sub> = 8/20μs	I <sub>PP</sub>	2	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	±15 ±8	kV
Operating temperature range		T <sub>J</sub>	-40~+125	°C
Storage temperature range		T <sub>STG</sub>	-55~+150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Working peak reverse voltage		V <sub>RWM</sub>			5	V
Breakdown voltage	I <sub>T</sub> = 1mA	V <sub>BR</sub>	5.5		9.5	V
Reverse leakage current	V <sub>RWM</sub> = 5V	I <sub>R</sub>			100	nA
Clamping voltage	I <sub>PP</sub> = 1A, T <sub>P</sub> = 8/20μs I <sub>PP</sub> = 2A, T <sub>P</sub> = 8/20μs	V <sub>C</sub>			12 15	V
Junction capacitance	V <sub>R</sub> = 0V, f = 1MHz	C <sub>J</sub>		3		pF

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

REV:C

## Rating and Characteristic Curves (CPDZC5V0C-HF)

Fig.1 - 8/20 $\mu$ s Peak Pulse Current Waveform Acc. IEC 61000-4-5

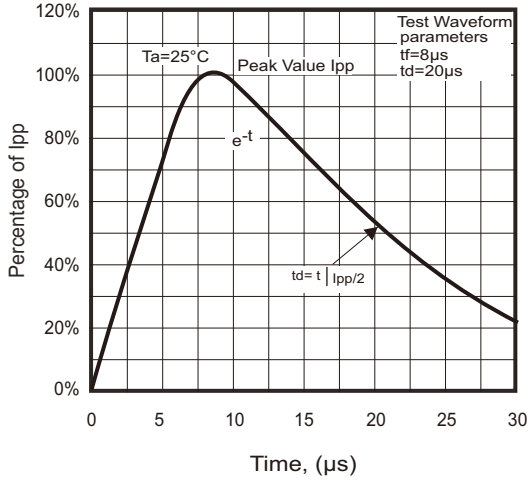


Fig.2 - Power Rating Derating Curve

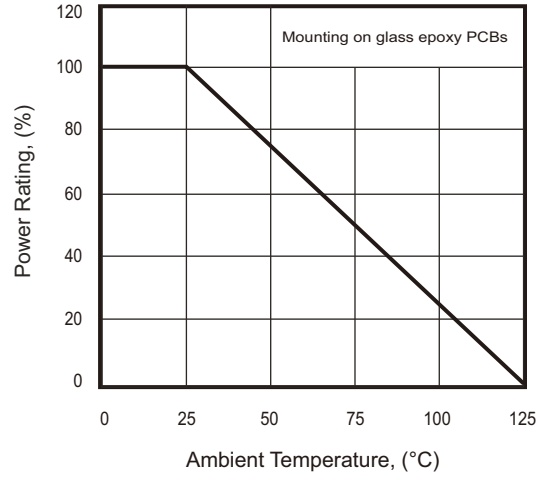


Fig.3 - Clamping Voltage Vs. Peak Pulse Current

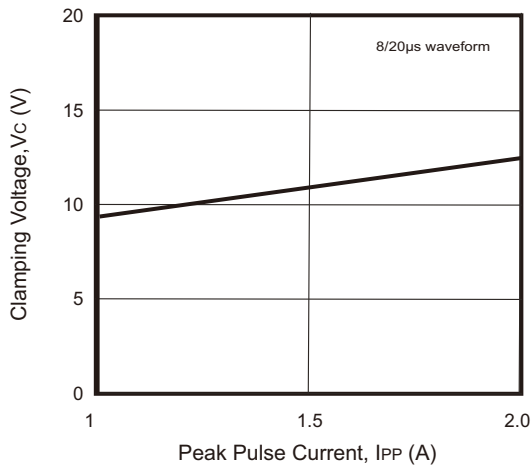
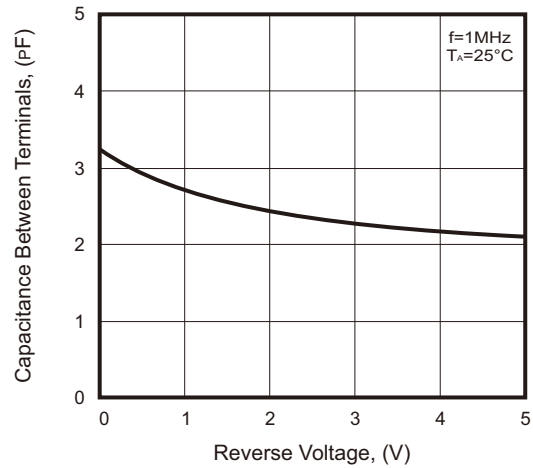
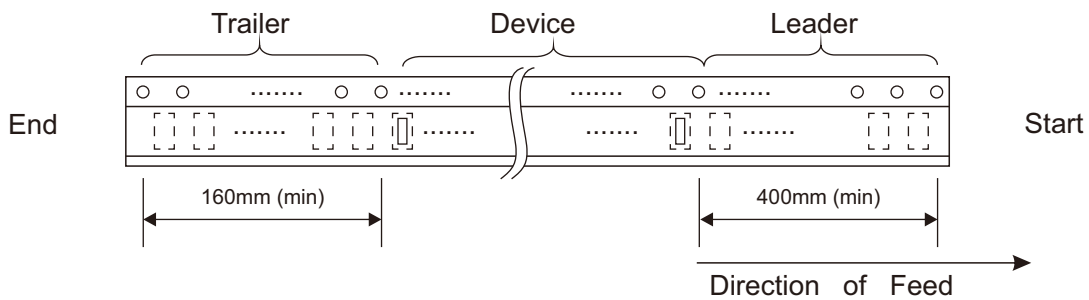
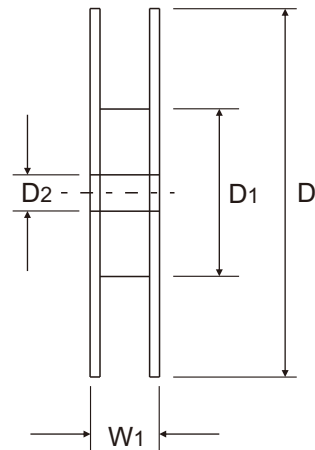
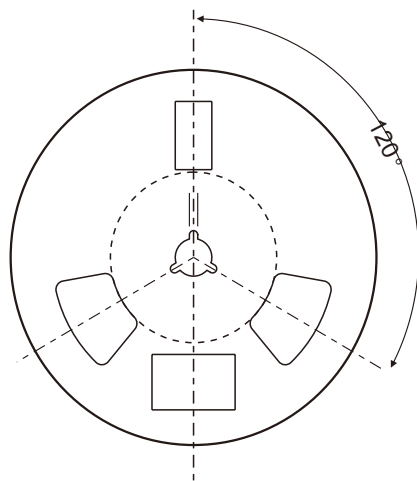
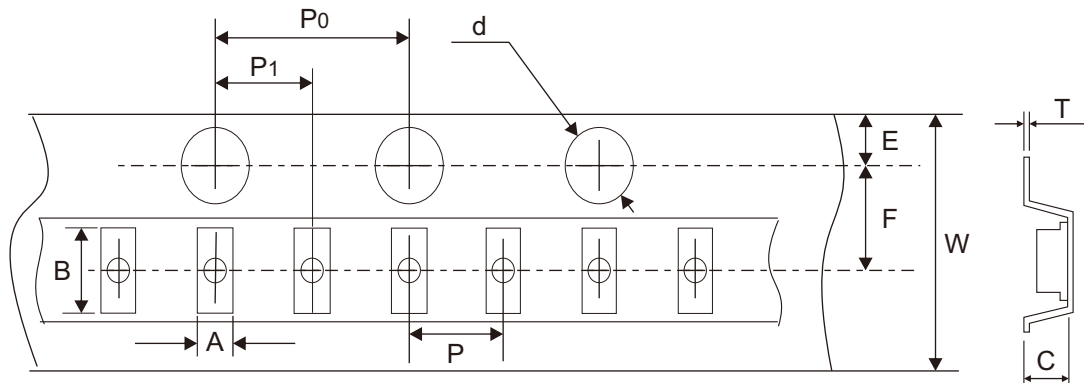


Fig.4 - Capacitance Between Terminals Characteristics



## Reel Taping Specification



0201 (DFN0603)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.44 ± 0.03	0.74 ± 0.03	0.40 ± 0.03	1.50 + 0.10 - 0.00	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.017 ± 0.001	0.029 ± 0.001	0.016 ± 0.001	0.059 + 0.004 - 0.000	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

0201 (DFN0603)	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 ± 0.03	8.00 + 0.30 - 0.10	12.00 + 0.50 - 0.00
	(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	0.472 + 0.020 - 0.000

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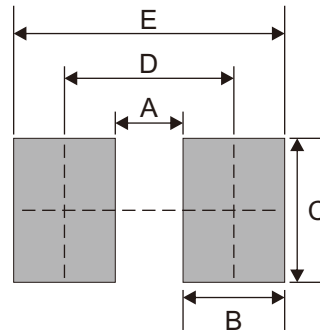
## Marking Code

Part Number	Marking Code
CPDZC5V0C-HF	5



## Suggested P.C.B. PAD Layout

SIZE	0201(DFN0603)	
	(mm)	(inch)
A	0.16	0.006
B	0.24	0.009
C	0.34	0.013
D	0.40	0.016
E	0.64	0.025



## Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
0201 (DFN0603)	10,000	7