

CPDZ5V0U-HF

RoHS Device
Halogen Free



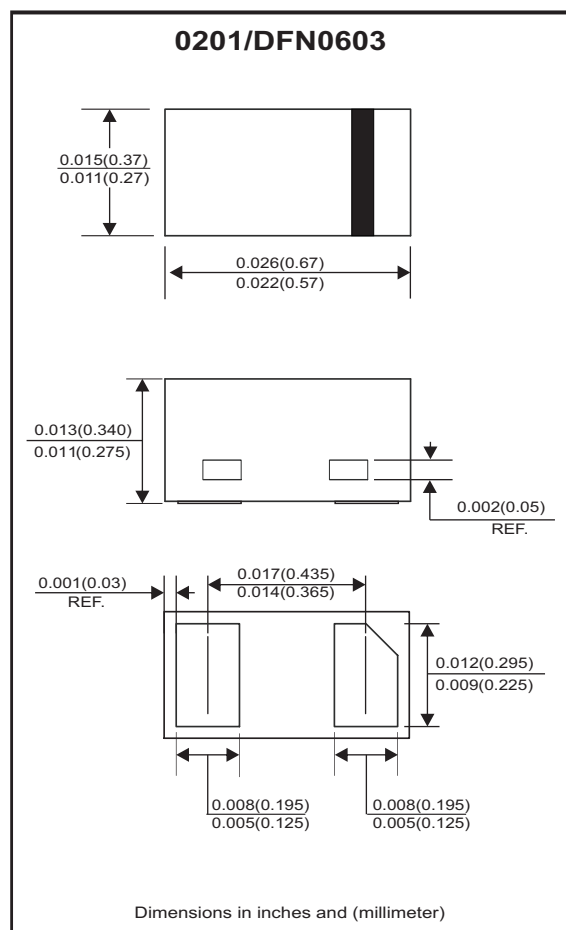
Features

- Uni-directional ESD protection of one line.
- IEC61000-4-2 Level 4 ESD protection.
- Low capacitance.
- Low reverse stand-off voltage.
- Low reverse clamping voltage
- Low leakage current.

Mechanical data

- Case: 0201/DFN0603 package, molded plastic.
- Polarity: Color band denotes cathode end.
- Mounting position: Any

Circuit diagram



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

Parameter	Conditions	Symbol	Limit	Unit
IEC 61000-4-2 ESD voltage	Air model	V _{ESD} ⁽¹⁾	±15	kV
	Contact model		±15	
	Per human body model		±16	
	Machine model		±0.4	
Peak pulse power		P _{PP} ⁽²⁾	80	W
Peak pulse current		I _{PP} ⁽²⁾	4	A
Lead solder temperature	Maximum (10 second duration)	T _L	260	°C
Junction temperature range		T _J	150	°C
Storage temperature range		T _{STG}	-55~+150	°C

Notes:

(1) Device stressed with ten non-repetitive ESD pulses.

(2) Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5

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

REV: A

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand off voltage		$V_{RWM}^{(1)}$			5	V
Reverse leakage current	$V_{RWM} = 5V$	I_R			1	μA
Breakdown voltage	$I_T = 1mA$	$V_{(BR)}$	5.8		9.4	V
Clamping voltage	$I_{PP} = 4A$	$V_C^{(2)}$			20	V
Forward voltage	$I_F = 10mA$	V_F			1	V
Junction capacitance	$V_R = 0V, f = 1MHz$	C_J		0.9		pF

Notes:

(1) Other voltage available upon request.

(2) Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5

RATING AND CHARACTERISTIC CURVES (CPDZ5V0U-HF)

Fig.1 - Forward Characteristics

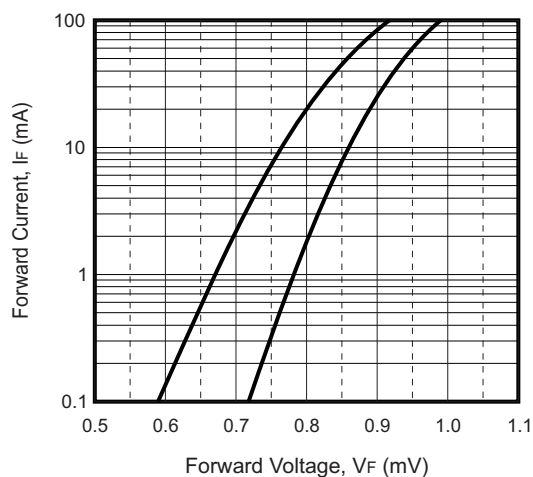


Fig.2 - Reverse Characteristics

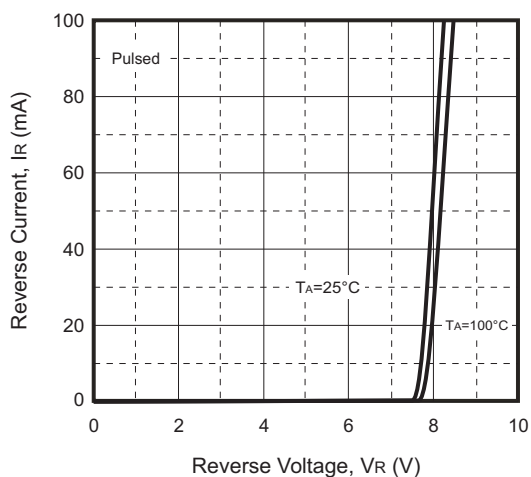


Fig.3 - V_C — I_{PP}

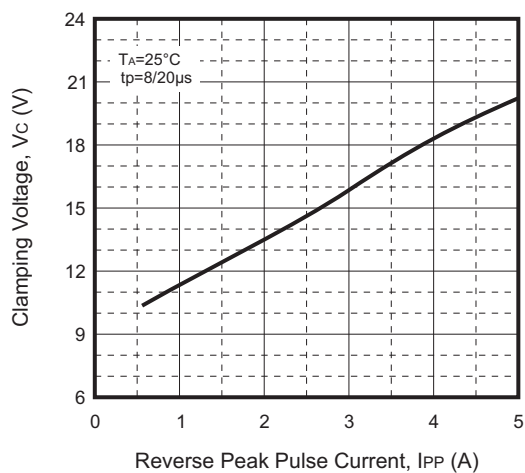
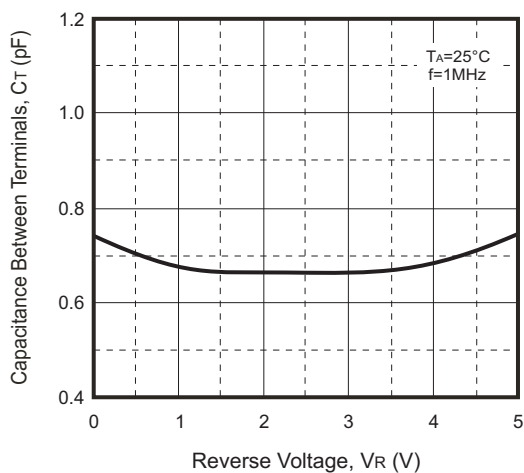
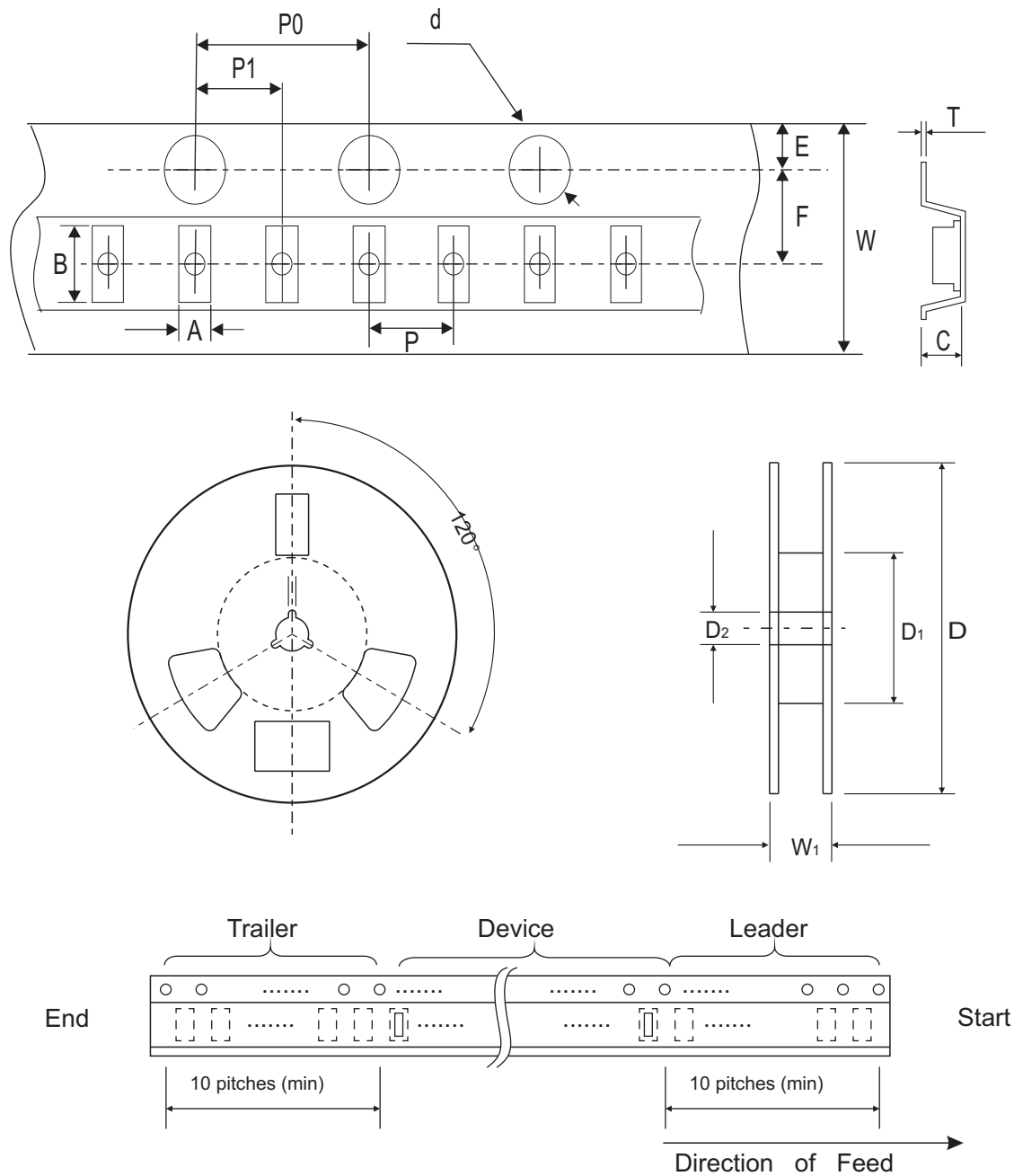


Fig.4 - Capacitance Characteristics



Reel Taping Specification



0201 (DFN0603)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	0.39 +0.03/-0.02	0.72 ± 0.03	0.36 ± 0.03	1.50 + 0.10	178 ± 1.00	54.4 ± 0.40	13.0 ± 0.20
	(inch)	0.015 +0.001/-0.001	0.028 ± 0.001	0.014 ± 0.001	0.059 + 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

0201 (DFN0603)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.05	4.00 ± 0.05	2.00 ± 0.05	0.23 ± 0.05	8.00 ± 0.10	12.30 ± 0.10
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.002	0.157 ± 0.002	0.079 ± 0.002	0.009 ± 0.002	0.315 ± 0.004	0.484 ± 0.004

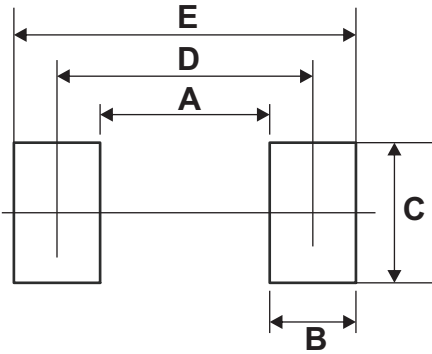
Marking Code

Part Number	Marking Code
CPDZ5V0U-HF	AE



Suggested 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

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