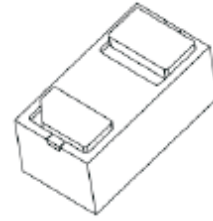


CPDZ5V0PA-HF

RoHS Device

Halogen Free



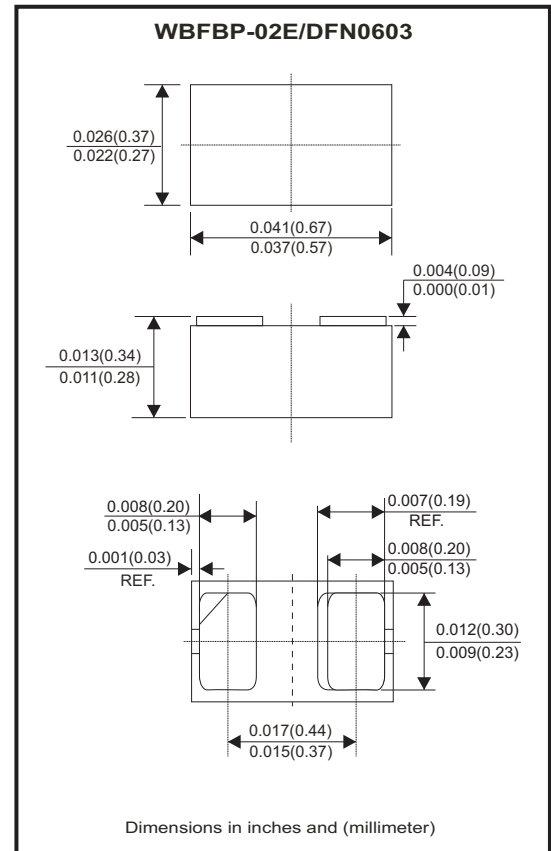
Features

- Bi-directional ESD protection of one line.
- IEC61000-4-2 Level 4 ESD protection.
- Low capacitance: 0.9pF
- Reverse stand-off voltage: 5V
- Low reverse clamping voltage.
- Low leakage current.

Mechanical data

- Case: WBFBP-02E/DFN0603 package, molded plastic.
- Terminals: Tin plated, solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Mounting position: Any

Circuit diagram



Maximum Ratings (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
IEC 61000-4-2 ESD voltage	Air model	$V_{\text{ESD}}^{(1)}$	± 15	kV
	Contact model		± 12	
	Per human body model		± 16	
	Machine model		± 0.4	
JESD22-A114-B ESD voltage				
ESD voltage				
Peak pulse power		$P_{\text{PP}}^{(2)}$	88	W
Peak pulse current		$I_{\text{PP}}^{(2)}$	4	A
Lead solder temperature	Maximum(10 second duration)	T_L	260	$^{\circ}\text{C}$
Operation temperature		T_J	150	$^{\circ}\text{C}$
Storage temperature range		T_{STG}	-55~+150	$^{\circ}\text{C}$

Notes:

- (1) Device stressed with ten Non-repetitive ESD pulses.
- (2) Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand off voltage		$V_{RWM}^{(1)}$			5	V
Reverse leakage current	$V_{RWM} = 5\text{V}$	I_R			1	μA
Breakdown voltage	$I_T = 1\text{mA}$	$V_{(BR)}$	6.5	9.0		V
Clamping voltage	$I_{PP} = 4\text{A}$	$V_C^{(2)}$			22	V
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	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 (CPDZ5V0PA-HF)

Fig.1 - 8/20 μs Peak Pulse Current
Waveform Acc. IEC 61000-4-5

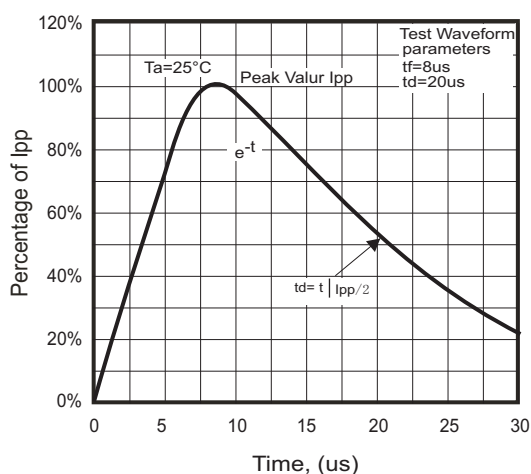


Fig.2 - Capacitance Characteristics

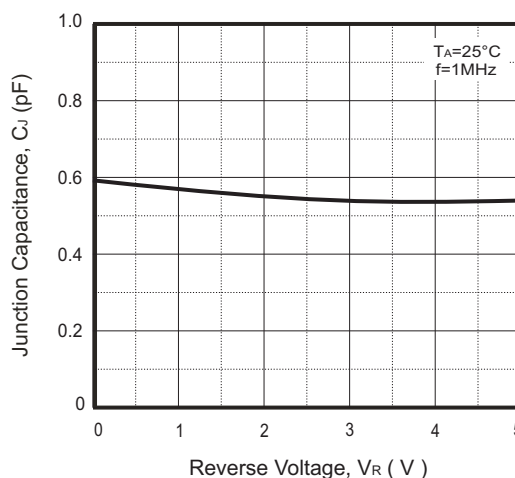
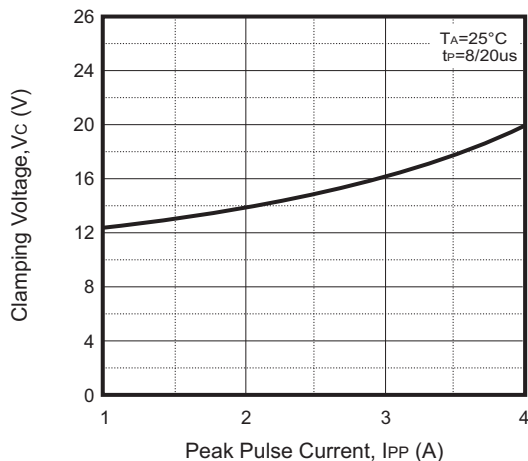
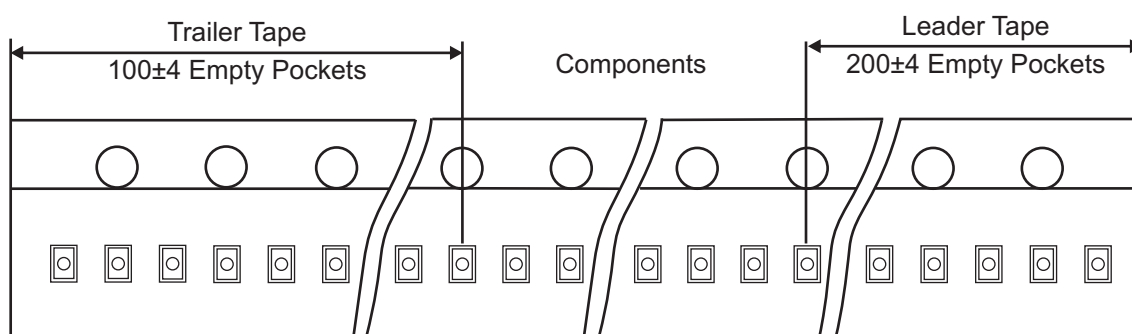
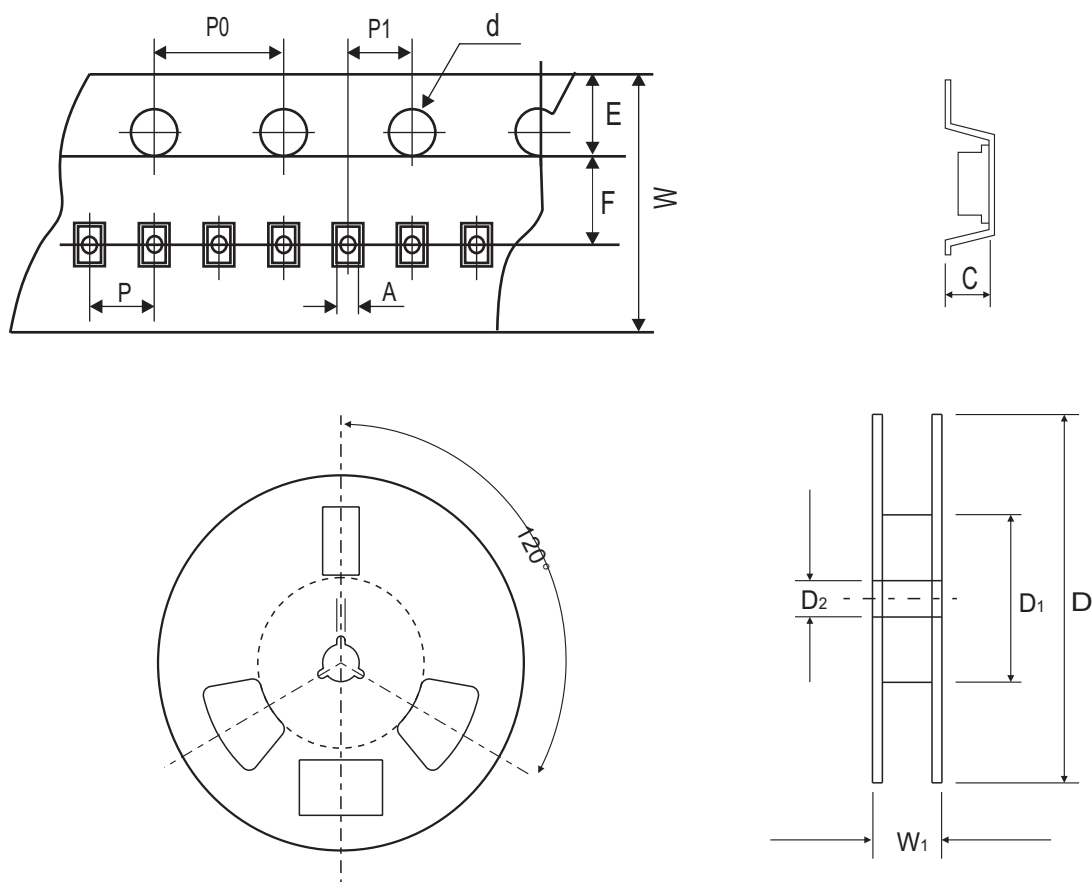


Fig.3 - Clamping Voltage Vs.
Peak Pulse Current



Reel Taping Specification



WBFBP-02E /DFN0603	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	0.41 + 0.04 - 0.01	0.70 ± 0.05	0.38 ± 0.05	1.50 + 0.10	178.0 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.016 + 0.002 - 0.001	0.028 ± 0.002	0.015 ± 0.002	0.059 + 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

WBFBP-02E /DFN0603	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.05	4.00 ± 0.05	2.00 ± 0.05	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.002	0.157 ± 0.002	0.079 ± 0.002	0.315 + 0.012 - 0.004	0.484 ± 0.039

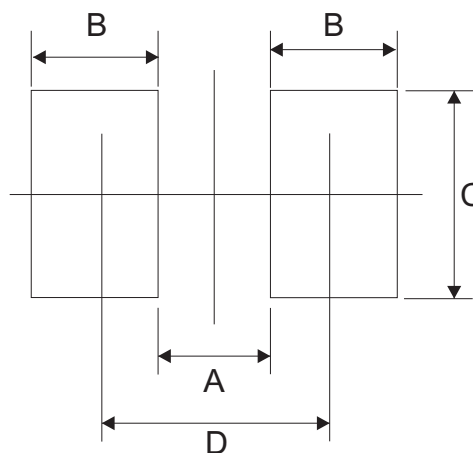
Marking Code

Part Number	Marking Code
CPDZ5V0PA-HF	H



Suggested PAD Layout

SIZE	WBFBP-02E/DFN0603	
	(mm)	(inch)
A	0.20	0.006
B	0.22	0.009
C	0.36	0.013
D	0.40	0.016



Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
WBFBP-02E /DFN0603	10,000	7