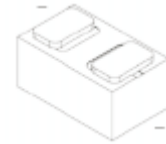


## CPDVR7V0-HF

RoHS Device

Halogen Free



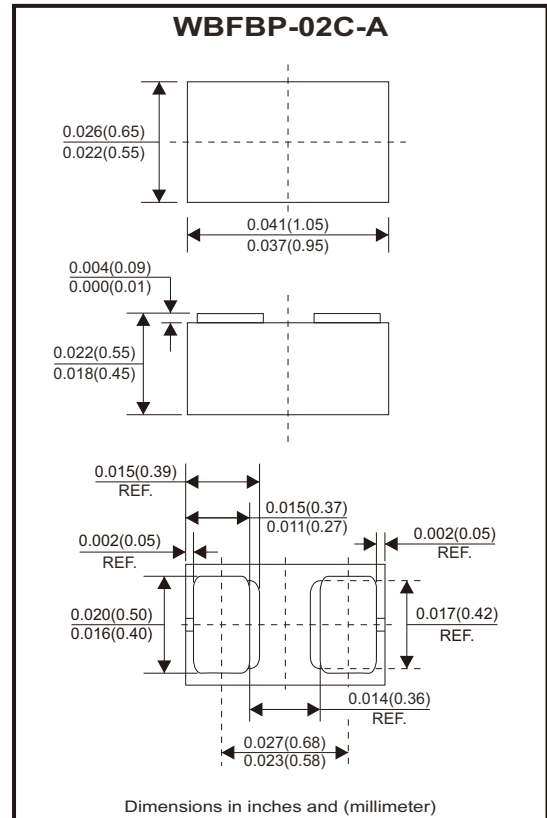
### Features

- Bi-directional ESD protection of one line.
- Reverse stand-off voltage: 7V.
- Low reverse clamping voltage.
- Low leakage current.
- Excellent package: 1.0mm x 0.6mm x 0.5mm.
- Fast response time.
- JESD22-A114-B ESD rating of class 3B per human body model.
- IEC 61000-4-2 Level 4 ESD protection.

### Mechanical data

- Case: WBFBP-02C-A package, molded plastic.

### Circuit Diagram



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

Parameter	Symbol	Value	Unit
IEC 61000-4-2 ESD voltage air model	V <sub>ESD</sub> (Note 1)	±25	kV
IEC 61000-4-2 ESD voltage contact model			
JESD22-A114-B ESD voltage per human body model			
ESD voltage machine model		±0.4	
Peak pulse power (Note 2)	P <sub>PP</sub>	85	W
Peak pulse current (Note 2)	I <sub>PP</sub>	5	A
Lead solder temperature - maximum (10 second duration)	T <sub>L</sub>	260	°C
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>STG</sub>	-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 IEC 61000-4-5.

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand off voltage (Note 1)		$V_{RWM}$			7.0	V
Reverse leakage current	$V_{RWM} = 7\text{V}$	$I_R$			1	$\mu\text{A}$
Breakdown voltage	$I_T = 1\text{mA}$	$V_{(BR)}$	8.2		10.5	V
	$I_T = 100\text{mA}$		7.0			
Clamping voltage (Note 2)	$I_{PP} = 5\text{A}$	$V_C$			17	V
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	$C_J$		9		pF

Notes: 1. Other voltages available upon request.

2. Non-repetitive current pulse 8/20 $\mu\text{s}$  exponential decay waveform according to IEC 61000-4-5.

## Rating and Characteristic Curves (CPDVR7V0-HF)

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

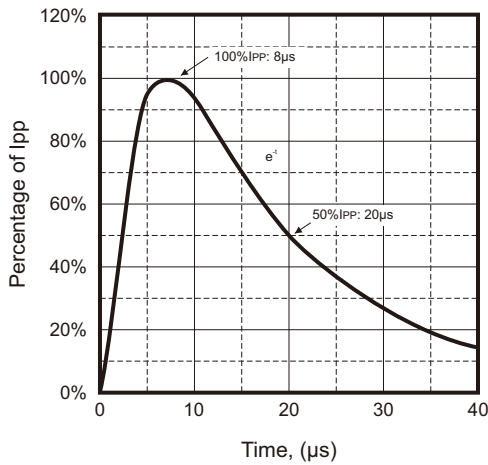


Fig.2 - Reverse Characteristics

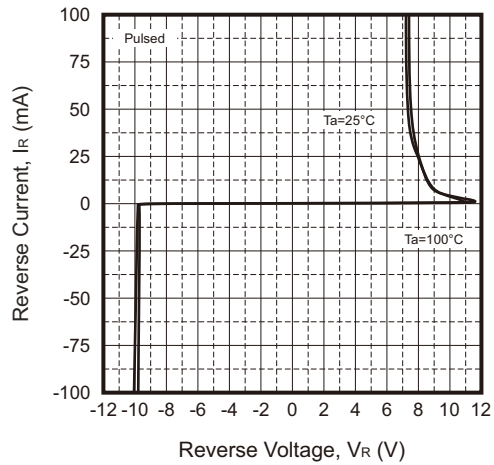


Fig.3 - Capacitance Characteristics

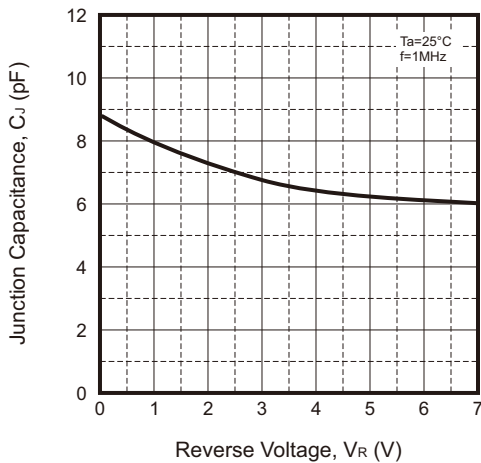
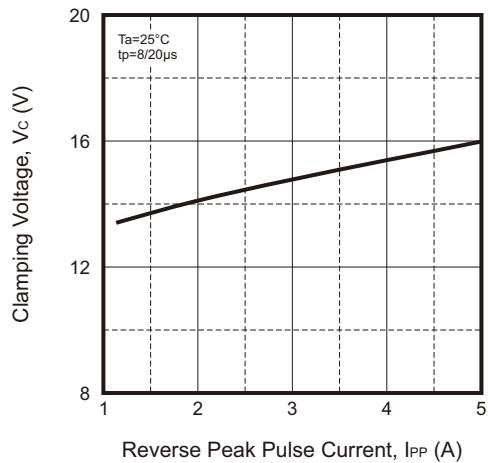
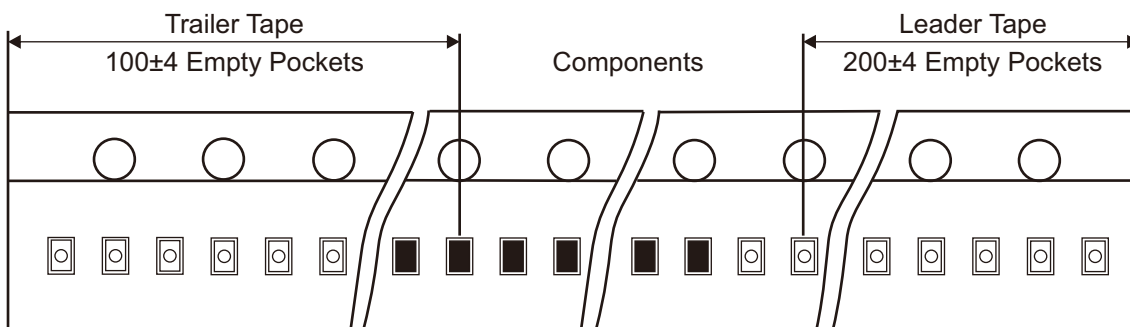
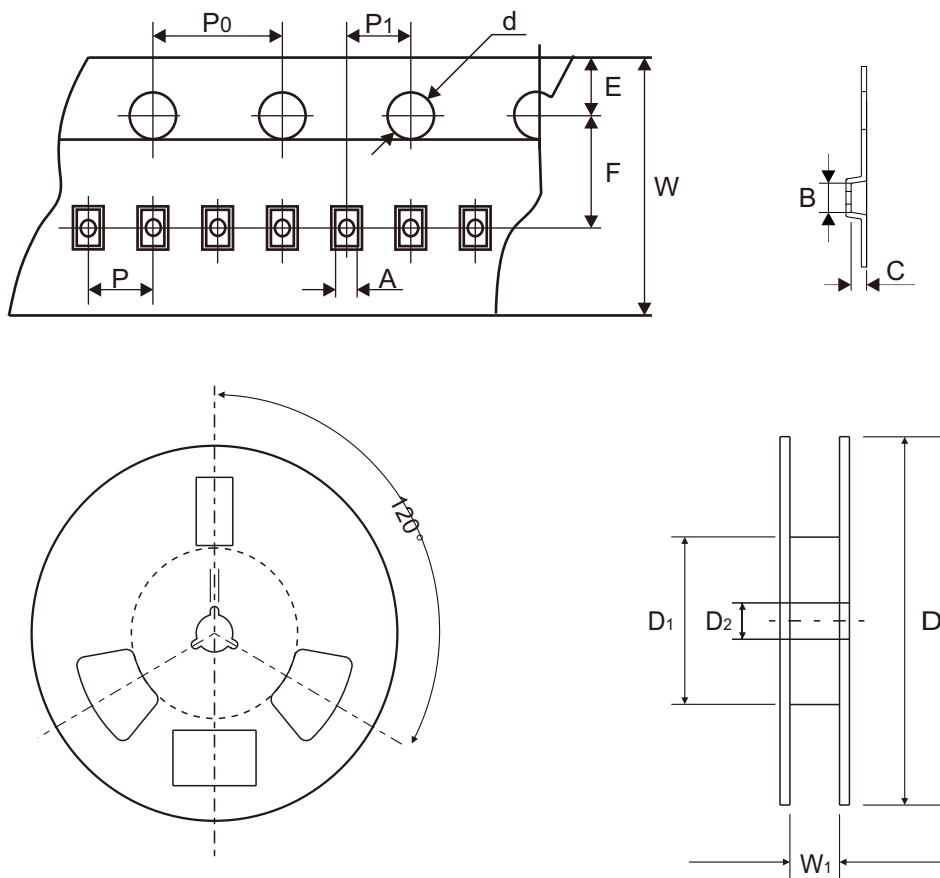


Fig.4 -  $V_C$  —  $I_{PP}$



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

## Reel Taping Specification



WBFBP-02C-A	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.66 ± 0.05	1.15 ± 0.05	0.66 ± 0.05	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.026 ± 0.002	0.045 ± 0.002	0.026 ± 0.002	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

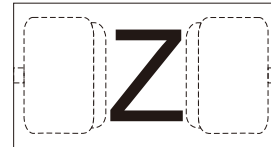
WBFBP-02C-A	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	2.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.079 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.374 ± 0.039

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

REV:A

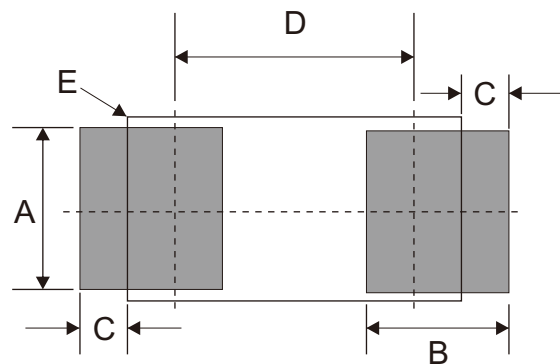
## Marking Code

Part Number	Marking Code
CPDVR7V0-HF	Z



## Suggested PAD Layout

SIZE	WBFBP-02C-A	
	(mm)	(inch)
A	0.55	0.022
B	0.52	0.020
C	0.15	0.006
D	0.63	0.025
E	1.00*0.60 PKG.	



Notes: 1.The pad layout is for reference purposes only.

## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
WBFBP-02C-A	10,000	7