

## CPDV5V0A-HF

**RoHS Device**  
**Halogen Free**

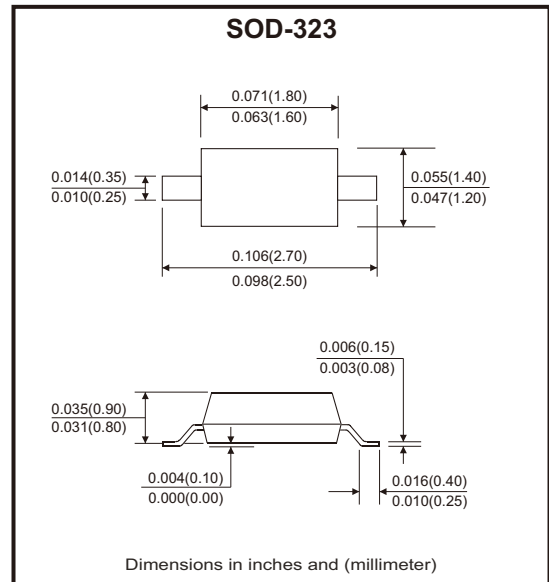


### Features

- IEC61000-4-2 (ESD)  $\pm 15\text{kV}$  (air),  $\pm 8\text{kV}$  (contact).
- IEC61000-4-4 (EFT) 40A (5/50ns).
- Peak power dissipation: 400W (8/20 $\mu\text{s}$ ).
- Protects one directional I/O line.
- Low clamping voltage.
- Working voltages: 5V.
- Low leakage current.
- Low capacitance.

### Mechanical data

- Case: SOD-323 package.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026



### Circuit diagram



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

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (air)	$V_{ESD}$	$\pm 15$	kV
ESD per IEC 61000-4-2 (contact)		$\pm 8$	
Peak pulse power (8/20 $\mu\text{s}$ )	$P_{PP}$	400	W
Operating temperature range	$T_{OPT}$	-55 to +150	$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse working voltage		$V_{RWM}$			5.0	V
Reverse breakdown voltage	$I_T = 1\text{mA}$	$V_{BR}$	5.8		7.8	V
Reverse leakage current	$V_{RWM} = 5\text{V}$	$I_R$			1.0	$\mu\text{A}$
Clamping voltage	$I_{PP} = 1\text{A}, T_P = 8/20\mu\text{s}$	$V_C$			9.8	V
	$I_{PP} = 25\text{A}, T_P = 8/20\mu\text{s}$			15	20	
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	$C_J$		30	40	pF

## Rating and Characteristic Curves (CPDV5V0A-HF)

Fig.1 - Pulse Waveform

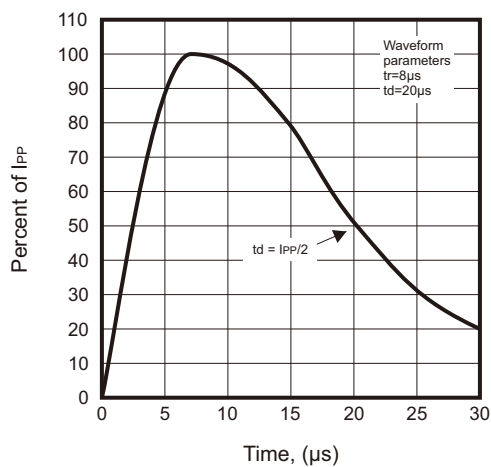
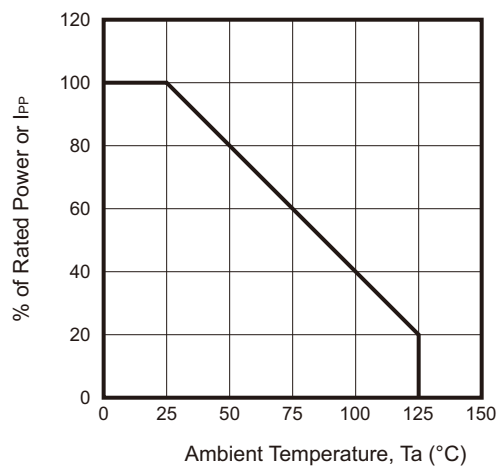
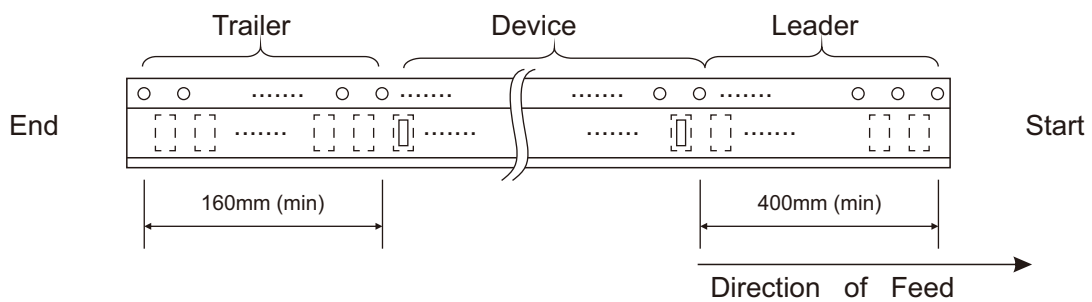
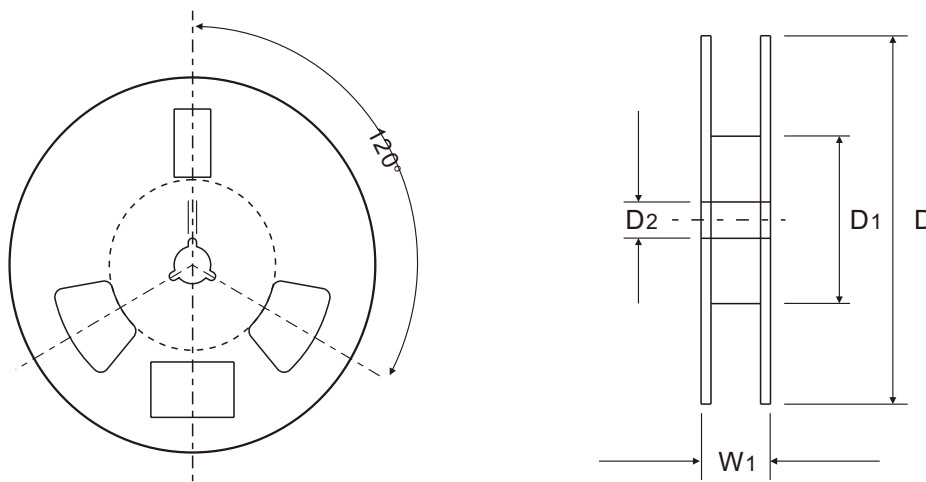
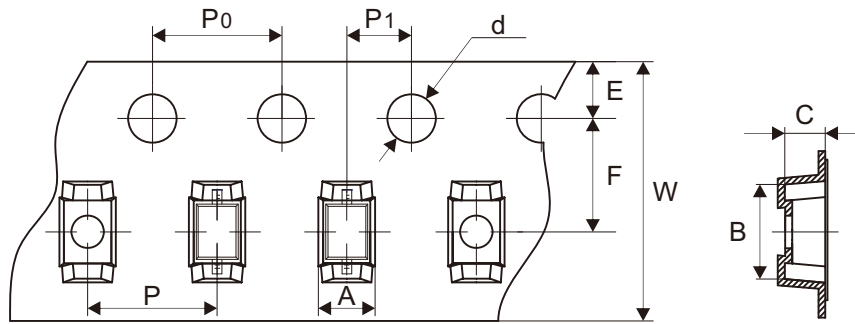


Fig.2 - Power Derating Curve



## Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.46 ± 0.05	2.90 ± 0.05	1.25 ± 0.05	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.057 ± 0.002	0.114 ± 0.002	0.049 ± 0.002	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-323	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

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

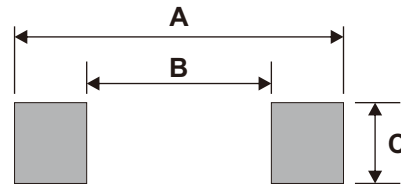
## Marking Code

Part Number	Marking Code
CPDV5V0A-HF	5/S



## Suggested PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.85	0.112
B	1.60	0.063
C	0.85	0.033



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

## Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-323	3,000	7