

## CPDV24V0A-HF

RoHS Device  
Halogen Free

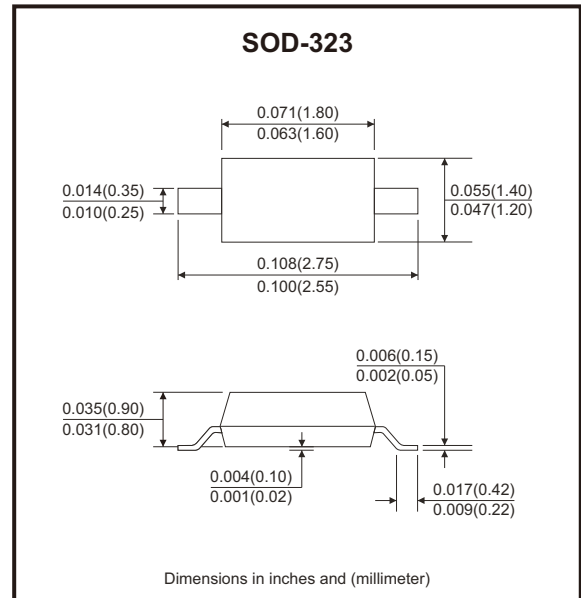


### Features

- 350W peak pulse power ( $t_p=8/20\mu s$ ).
- Low clamping voltage.
- Low reverse clamping voltage.
- Bi-directional ESD protection.

### Mechanical data

- Case: SOD-323, molded plastic.
- Molding compound: UL flammability classification rating 94V-0.
- Terminals: Matte tin-plated leads, solderability per MIL-STD-202, method 208.
- Mounting position: Any.



### Circuit Diagram



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

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (air)	V <sub>ESD-A</sub>	±30	kV
IEC 61000-4-2; ESD (contact)	V <sub>ESD-C</sub>	±30	kV
Peak pulse power ( $t_p = 8/20\mu s$ )	P <sub>PP</sub>	350	W
Thermal resistance junction-to-air	R <sub>θJA</sub>	454	°C/W
Thermal resistance junction-to-case	R <sub>θJC</sub>	170	°C/W
Lead solder temperature (10 seconds duration)	T <sub>L</sub>	260	°C
Junction temperature	T <sub>J</sub>	125	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		$V_{RWM}$			24	V
Reverse breakdown voltage	$I_T = 1\text{mA}$	$V_{(BR)}$	26.7		33	V
Reverse leakage current	$V_{RWM} = 24\text{V}$	$I_R$			1	$\mu\text{A}$
Clamping voltage	$I_{PP} = 5\text{A}, t_p = 8/20\mu\text{s}$	$V_C$			46	V
	$I_{PP} = 7\text{A}, t_p = 8/20\mu\text{s}$	$V_C$			54	V
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	$C_J$			50	pF

## Rating and Characteristic Curves (CPDV24V0A-HF)

Fig.1 - 8/20 $\mu\text{s}$  Waveform per IEC 61000-4-5

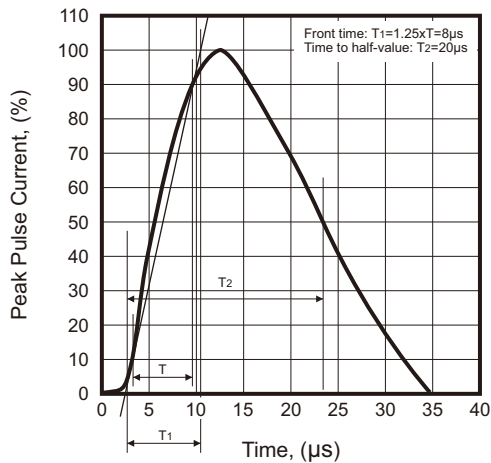


Fig.2 - ESD Pulse Waveform According to IEC 61000-4-2

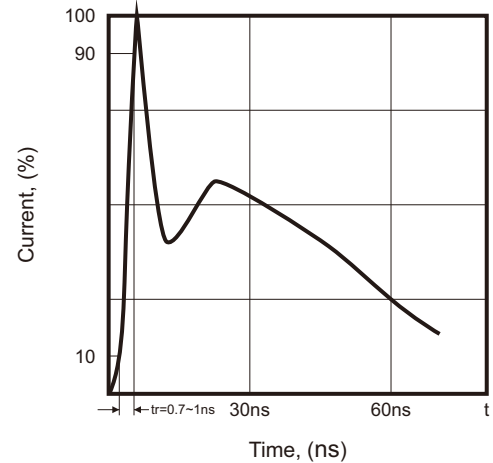
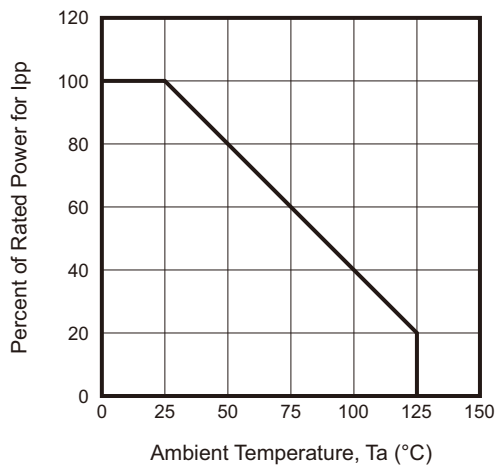
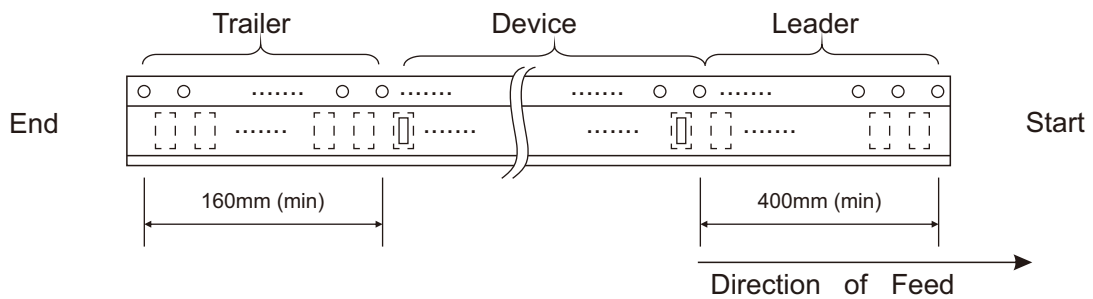
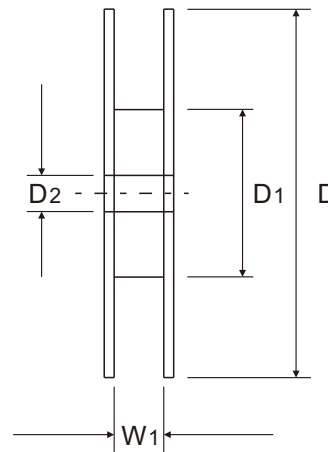
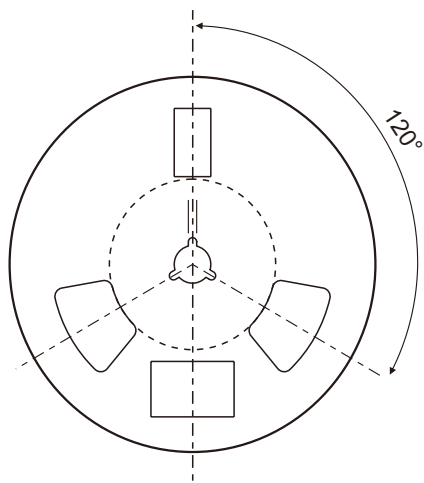
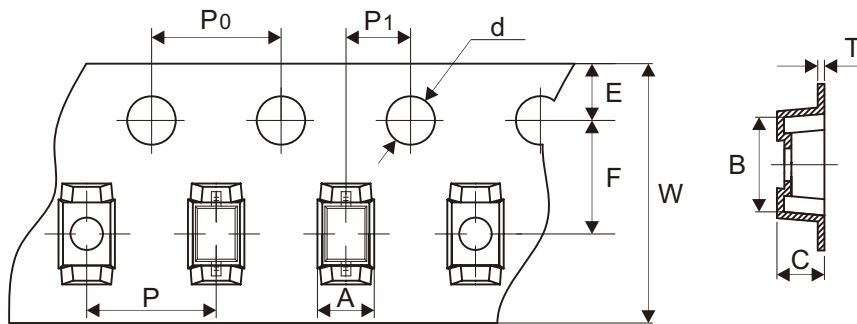


Fig.3 - Power Derating Curve



## Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.46 ± 0.05	3.30 ± 0.05	1.25 ± 0.05	1.50 + 0.10	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.057 ± 0.002	0.130 ± 0.002	0.049 ± 0.002	0.059 + 0.004	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOD-323	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.25 ± 0.02	8.00 + 0.30 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.010 ± 0.001	0.315 + 0.012 - 0.004	0.374 ± 0.039

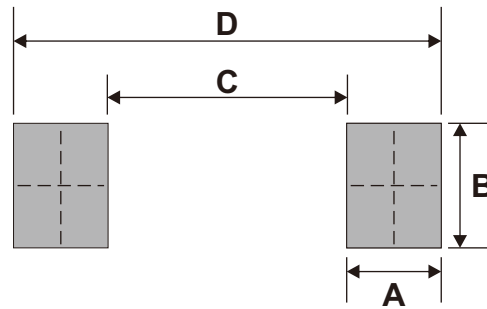
## Marking Code

Part Number	Marking Code
CPDV24V0A-HF	8/8



## Suggested P.C.B. PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	0.63	0.025
B	0.83	0.033
C	1.60	0.063
D	2.85	0.112



## Standard Packaging

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