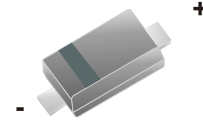


# CPDH2V5UB-HF Thru. CPDH12V0UB-HF

RoHS Device  
Halogen Free

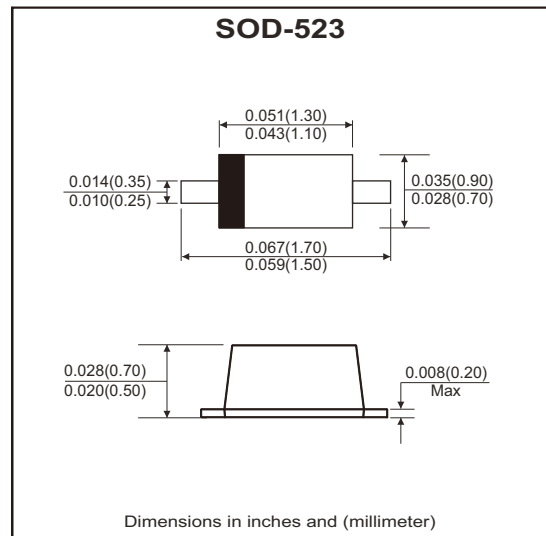


## Features

- IEC61000-4-2 Level 4 ESD protection.
- Protects one directional I/O line.
- Low clamping voltage.
- Working voltages: 2.5V~12V.
- Low leakage current.

## Mechanical data

- Case: SOD-523 package.
- Flammability rating: UL 94V-0.
- High temperature soldering guaranteed: 260°C/10s.



## Circuit Diagram



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

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (air)	V <sub>ESD</sub>	±30	kV
ESD per IEC 61000-4-2 (contact)		±22	
ESD Voltage per human body model	ESD	16	kV
ESD Voltage per machine model		400	
Total power dissipation on FR-5 board (Note 1) @ Ta=25°C	P <sub>D</sub>	150	mW
Junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C
Lead solder temperature - maximum (10 second duration)	T <sub>L</sub>	260	°C

Notes: 1. FR-5 = 1.0 x 0.75 x 0.62 in.

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

Part No.	V <sub>RWM</sub> (V) Max	I <sub>R</sub> (μA) Max	V <sub>B</sub> (V) Min	I <sub>T</sub> (mA)	V <sub>C</sub> (V)		V <sub>C</sub> (V)		P <sub>PK</sub> (W) Max	C <sub>J</sub> (pF) Max
					Max	@A	Max	@A		
CPDH2V5UB-HF	2.5	6	4.0	1	9.0	5	11.5	9	104	145
CPDH3V3UB-HF	3.3	0.9	5.0	1	10.0	5	14.0	7.5	105	105
CPDH5V0UB-HF	5.0	0.08	6.2	1	11.6	5	15.0	7	105	80
CPDH7V0UB-HF	7.0	0.03	7.5	1	14.0	5	18.0	6	108	65
CPDH12V0UB-HF	12.0	0.03	14.1	1	20.0	1	26.0	4	104	45

## Rating and Characteristic Curves (CPDH2V5UB-HF Thru. CPHD12V0UB-HF)

Fig.1 - ESD Clamping Voltage Screenshot  
Positive 8 kV Contact per IEC 61000-4-2

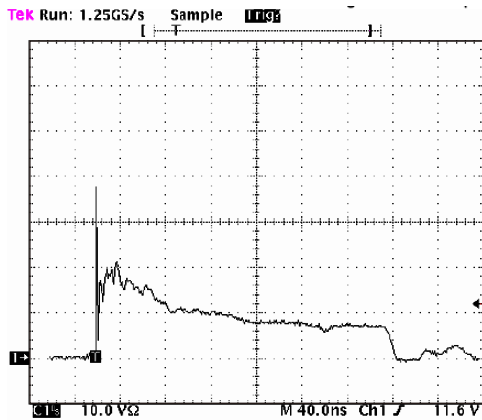
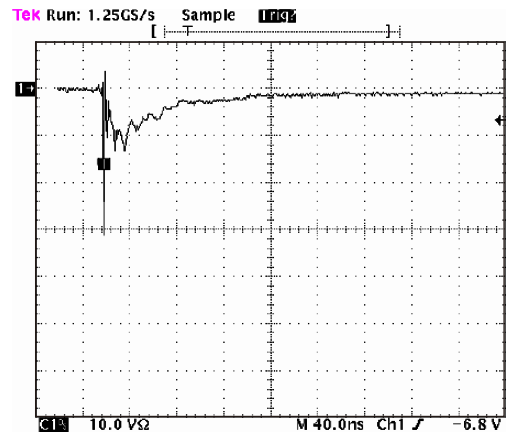
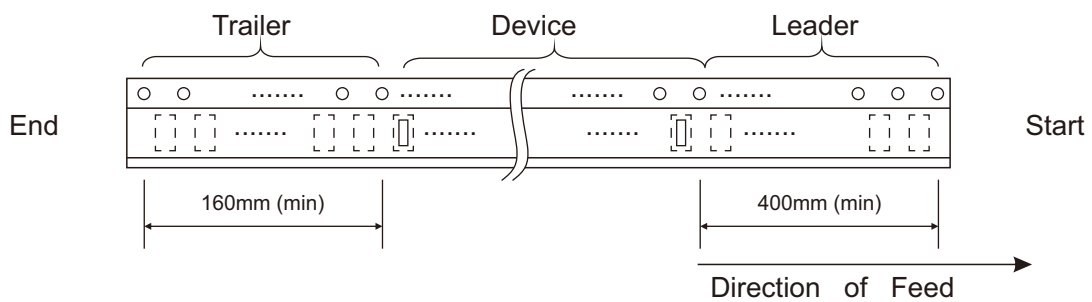
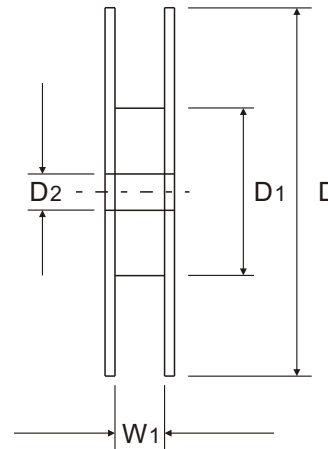
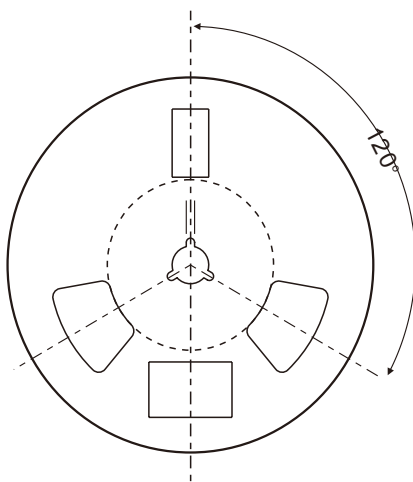
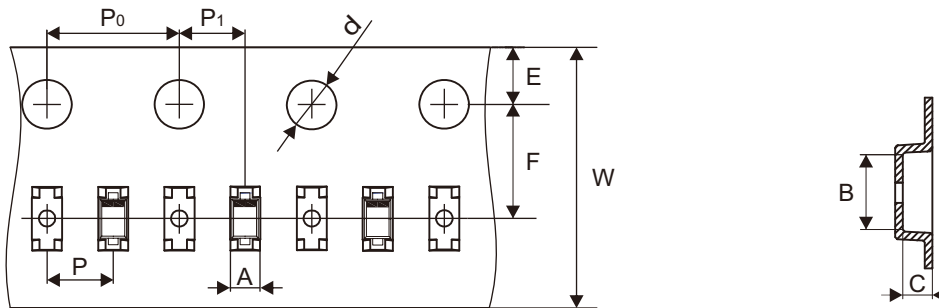


Fig.2 - ESD Clamping Voltage Screenshot  
Negative 8 kV Contact per IEC 61000-4-2



## Reel Taping Specification



SOD-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.90 ± 0.05	1.95 ± 0.05	0.73 ± 0.05	1.55 ± 0.05	178.00 ± 2.00	54.50 ± 1.00	13.00 ± 1.00
	(inch)	0.035 ± 0.002	0.077 ± 0.002	0.029 ± 0.002	0.061 ± 0.002	7.008 ± 0.079	2.146 ± 0.039	0.512 ± 0.039

SOD-523	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.05	4.00 ± 0.10	2.00 ± 0.05	8.00 + 0.30 - 0.10	9.40 ± 1.50
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.002	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.012 - 0.004	0.370 ± 0.059

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