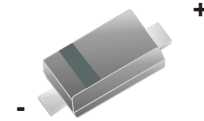


CPDH2V5UB-HF Thru. CDPH15V0UB-HF

RoHS Device
Halogen Free

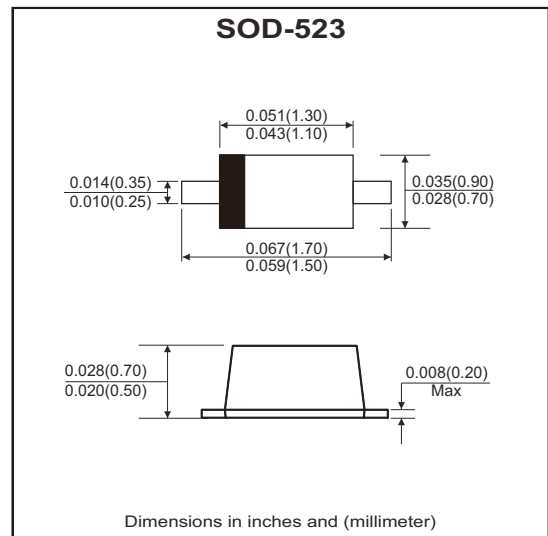


Features

- IEC61000-4-2 Level 4 ESD protection.
- Protects one directional I/O line.
- Low clamping voltage.
- Working voltages: 2.5V~15V.
- Low leakage current.

Mechanical data

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



Circuit Diagram



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

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (air)	V_{ESD}	±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	V
Total power dissipation on FR-5 board (Note 1) @ Ta=25°C	P_D	150	mW
Junction and storage temperature range	T_J, T_{STG}	-55 to +150	°C
Lead solder temperature - maximum (10 second duration)	T_L	260	°C

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

2. These ratings are limiting values above which the serviceability of the diode may be impaired.

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

Part No.	V _{RWM} (V) Max	I _R (μA) Max	V _B (V) Min	I _T (mA)	V _C (V)		V _C (V)		P _{PK} (W) Max	C _J (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
CPDH6V0UB-HF	6.0	0.05	6.8	1	13.5	5	17.5	6	105	70
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
CPDH15V0UB-HF	15.0	0.05	16.0	1	23.0	1	30.0	4	120	28

Rating and Characteristic Curves (CPDH2V5UB-HF Thru. CDPH15V0UB-HF)

Fig.1 - 8/20 μ s Waveform per IEC 61000-4-5

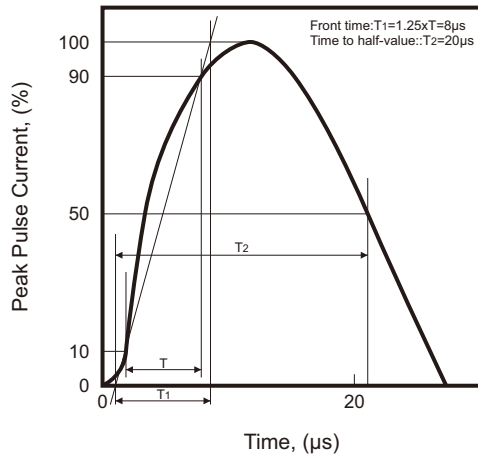


Fig.2 - Contact Discharge Current Waveform per IEC 61000-4-2

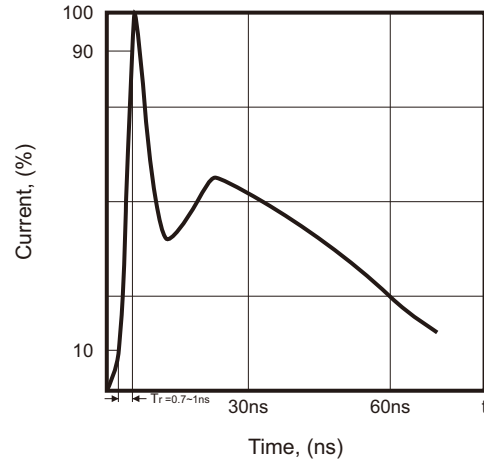


Fig.3 - Voltage vs Capacitance

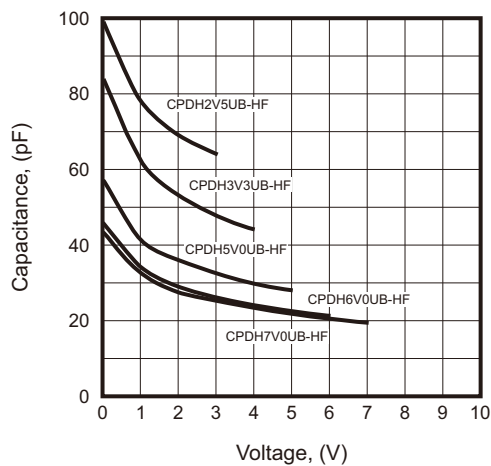


Fig.4 - Voltage vs Capacitance

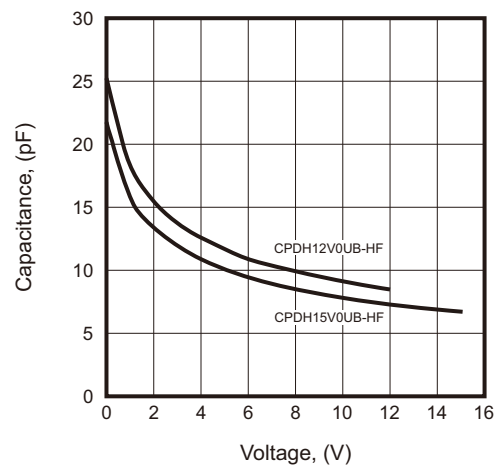


Fig.5 - Clamping Voltage vs Peak Pulse Current

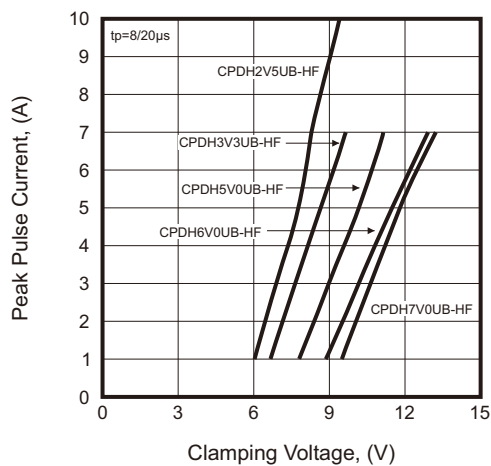
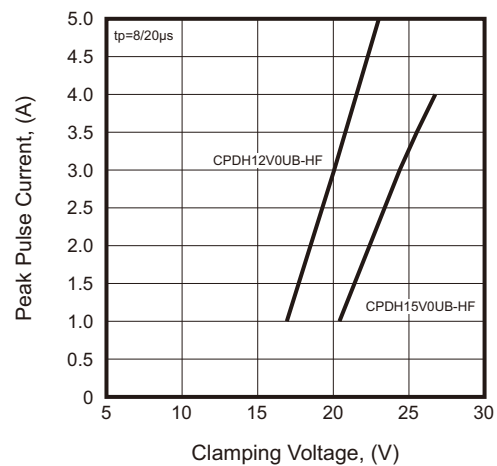
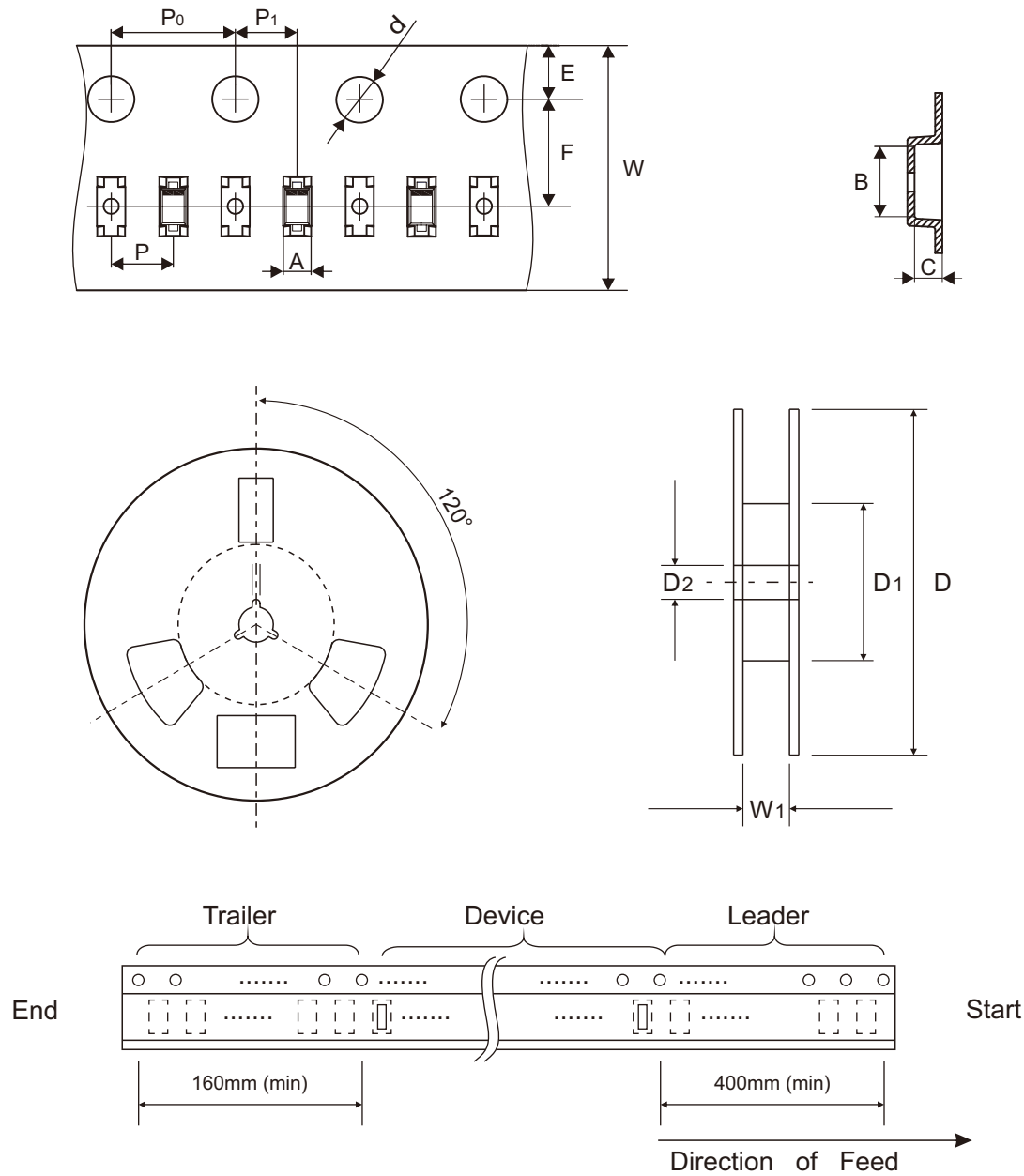


Fig.6 - Clamping Voltage vs Peak Pulse Current



Reel Taping Specification

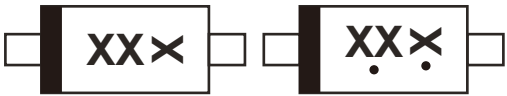


SOD-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.90 ± 0.05	1.95 ± 0.05	0.73 ± 0.05	1.55 ± 0.05	178.00 ± 2.00	54.50 ± 1.00	13.00 ± 1.00
	(inch)	0.035 ± 0.002	0.077 ± 0.002	0.029 ± 0.002	0.061 ± 0.002	7.008 ± 0.079	2.146 ± 0.039	0.512 ± 0.039

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

Marking Code

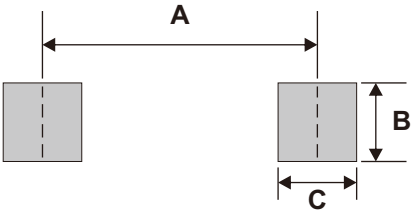
Part Number	Marking Code
CPDH2V5UB-HF	ZD ∞
CPDH3V3UB-HF	ZE ∞
CPDH5V0UB-HF	ZF ∞
CPDH6V0UB-HF	ZG ∞
CPDH7V0UB-HF	ZH ∞
CPDH12V0UB-HF	ZM ∞
CPDH15V0UB-HF	ZN ∞



XXX = Product type marking code
Solid dot = Control code

Suggested P.C.B. PAD Layout

SIZE	SOD-523	
	(mm)	(inch)
A	1.40	0.055
B	0.40	0.016
C	0.40	0.016



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-523	3,000	7