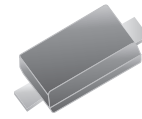


## CPDH3V3UP-HF

### RoHS Device

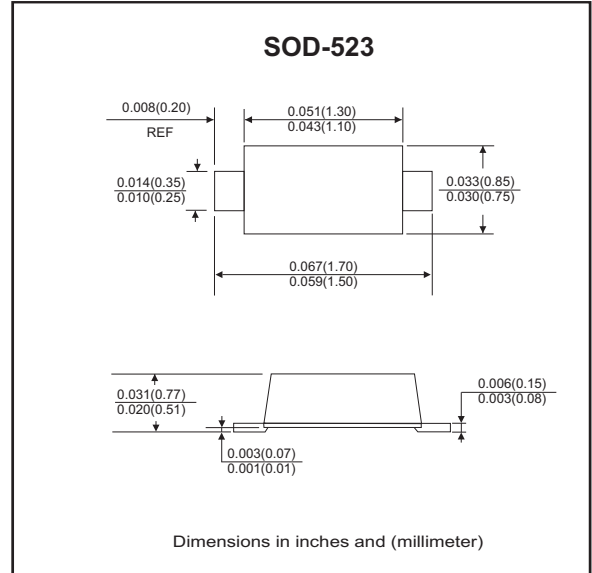


### Features

- IEC61000-4-2 (ESD)±15kV(Contact),±20kV(Air).
- Working voltage: 3.3V
- Low leakage current.
- Low operating and clamping voltages.

### Mechanical data

- Case: SOD-523 standard package ,molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Marking Code: E3
- Mounting position: Any
- Weight: 0.0012 gram(approx.).



### Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak pulse power ( tp = 8/20 us)	PPP	40	W
Peak pulse current ( tp = 8/20 us)	I <sub>PP</sub>	5	A
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V <sub>ESD</sub>	±20 ±15	kV
Operating temperature	T <sub>j</sub>	-55 to +125	°C
Storage temperature	T <sub>STG</sub>	-55 to +125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		V <sub>RWM</sub>			3.3	V
Punch-through voltage	I <sub>PT</sub> = 2uA	V <sub>PT</sub>	3.5			V
Snap-back voltage	I <sub>SB</sub> = 50mA	V <sub>SB</sub>	2.8			V
Reverse leakage current	V <sub>RWM</sub> = 3.3V	I <sub>R</sub>		0.05	0.5	uA
Clamping voltage	I <sub>PP</sub> = 1 A, tp=8/20us	V <sub>C</sub>			5.5	V
	I <sub>PP</sub> = 5 A, tp=8/20us	V <sub>C</sub>			8.0	V
Reverse clamping voltage	I <sub>PPR</sub> = 1 A, tp=8/20us	V <sub>CR</sub>			2.4	V
Junction capacitance	V <sub>R</sub> = 0 V, f = 1MHz	C <sub>j</sub>		12	16	pF

## RATING AND CHARACTERISTIC CURVES (CPDH3V3UP-HF)

Fig. 1 - Non-repetitive max. peak pulse power vs. pulse time

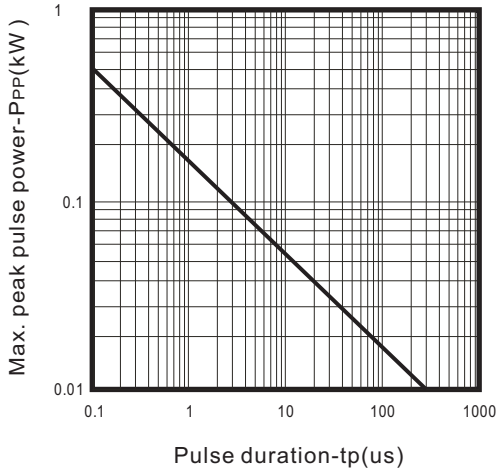


Fig. 2 - Power rating derating curve

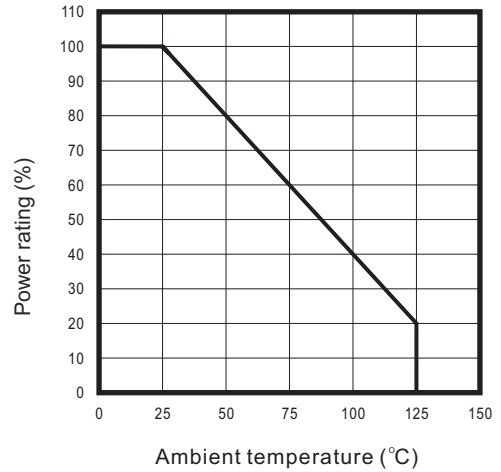


Fig.3 - Clamping voltage vs. peak pulse current

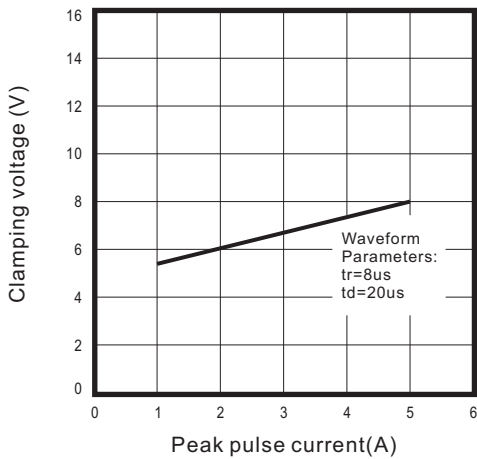


Fig.4 - Forward voltage vs. Forward current

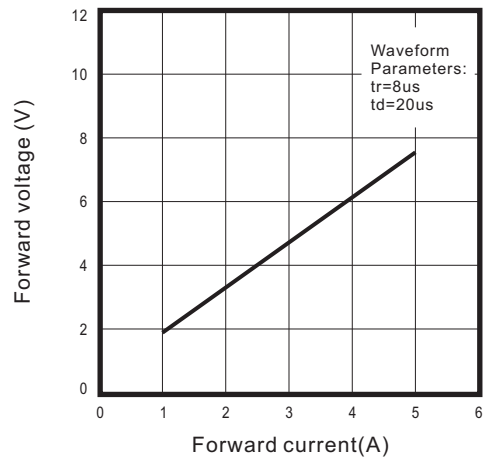
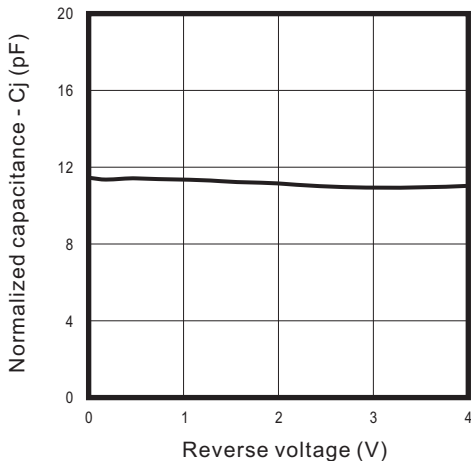
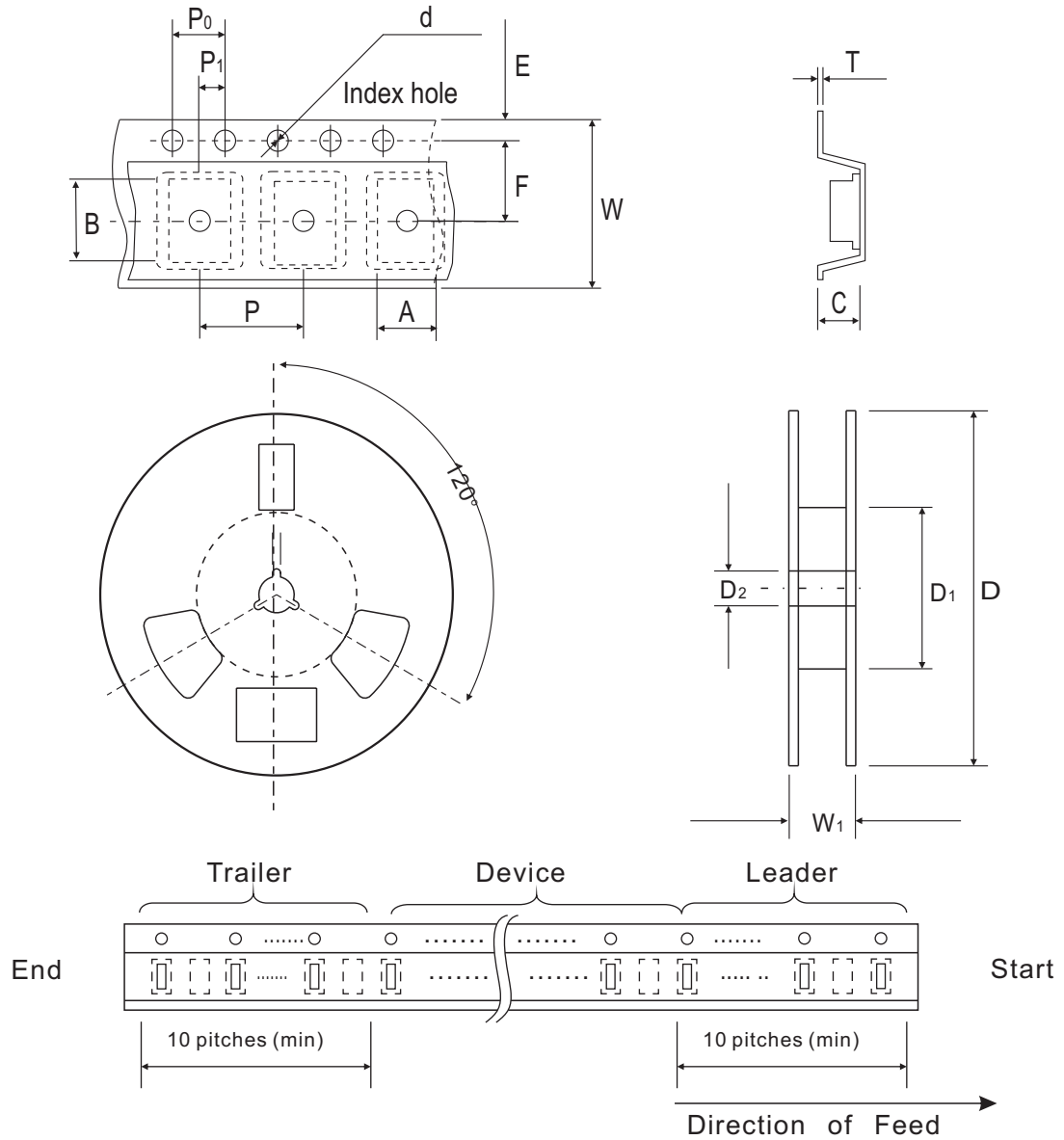


Fig.5 - Junction capacitance vs. reverse voltage



## Reel Taping Specification



SOD-523	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	$0.90 \pm 0.10$	$1.94 \pm 0.10$	$0.73 \pm 0.10$	$1.50 \pm 0.10$	$178 \pm 1.00$	$54.40 \pm 0.40$	$13.00 \pm 0.20$
	(inch)	$0.035 \pm 0.004$	$0.076 \pm 0.004$	$0.029 \pm 0.004$	$0.059 \pm 0.004$	$7.008 \pm 0.039$	$2.142 \pm 0.016$	$0.512 \pm 0.008$

SOD-523	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.05$	$2.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.10$	$8.00 + 0.30 / - 0.10$	$9.50 \pm 1.00$
	(inch)	$0.069 \pm 0.004$	$0.138 \pm 0.002$	$0.079 \pm 0.004$	$0.158 \pm 0.004$	$0.079 \pm 0.004$	$0.315 + 0.012 / - 0.004$	$0.374 \pm 0.039$

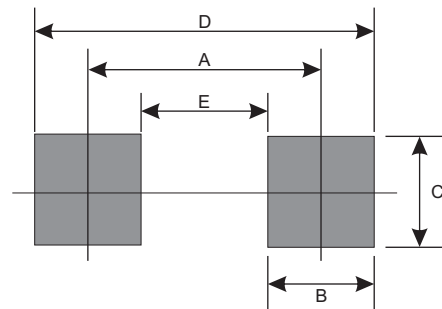
## Marking Code

Part Number	Marking Code
CPDH3V3UP-HF	E3



## Suggested PAD Layout

SIZE	SOD-523	
	(mm)	(inch)
A	1.40	0.055
B	0.60	0.024
C	0.70	0.028
D	2.00	0.079
E	0.80	0.031



## Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
SOD-523	3000	7