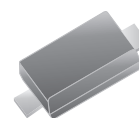


CPDH3V3UP-HF

RoHS Device**Halogen Free**

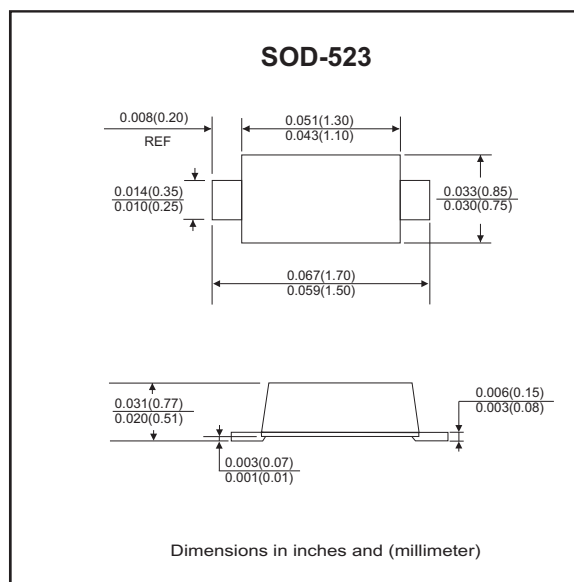
Features

- 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 Ratings (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power ($t_p = 8/20 \text{ us}$)	P_{PP}	40	W
Peak pulse current ($t_p = 8/20 \text{ us}$)	I_{PP}	5	A
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V_{ESD}	± 20 ± 15	kV
Operating temperature	T_j	-55 to +125	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-55 to +125	$^{\circ}\text{C}$

Electrical Characteristics (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		V_{RWM}			3.3	V
Punch-through voltage	$I_{PT} = 2\mu\text{A}$	V_{PT}	3.5			V
Snap-back voltage	$I_{SB} = 50\text{mA}$	V_{SB}	2.8			V
Reverse leakage current	$V_{RWM} = 3.3\text{V}$	I_R		0.05	0.5	μA
Clamping voltage	$I_{PP} = 1 \text{ A}$, $t_p=8/20\text{us}$	V_C			5.5	V
	$I_{PP} = 5 \text{ A}$, $t_p=8/20\text{us}$	V_C			8.0	V
Reverse clamping voltage	$I_{PPR} = 1 \text{ A}$, $t_p=8/20\text{us}$	V_{CR}			2.4	V
Junction capacitance	$V_R = 0 \text{ V}$, $f = 1\text{MHz}$	C_j		12	16	pF

RATING AND CHARACTERISTIC CURVES (CPDH3V3UP-HF)

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

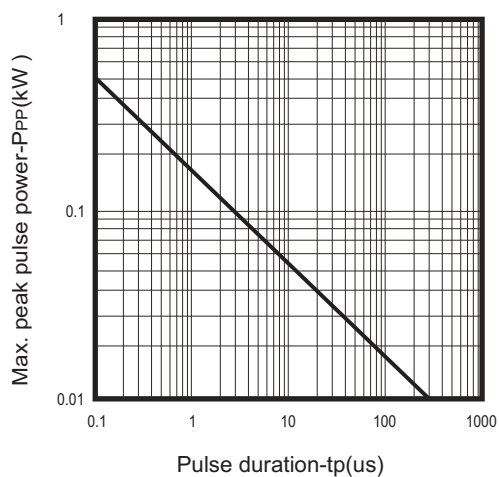


Fig. 2 - Power rating derating curve

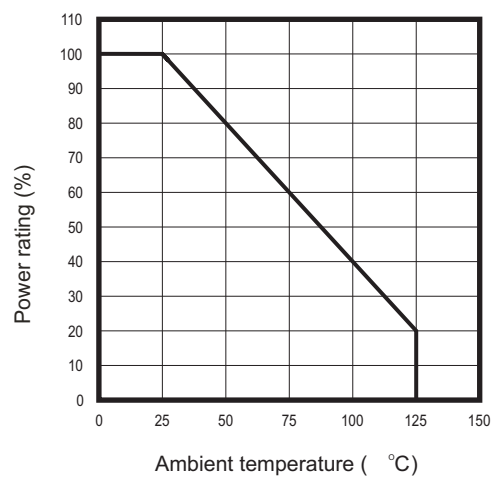


Fig.3 - Clamping voltage vs. peak pulse current

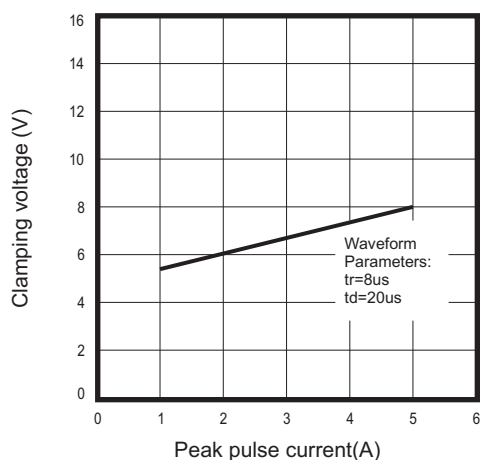


Fig.4 - Forward voltage vs. Forward current

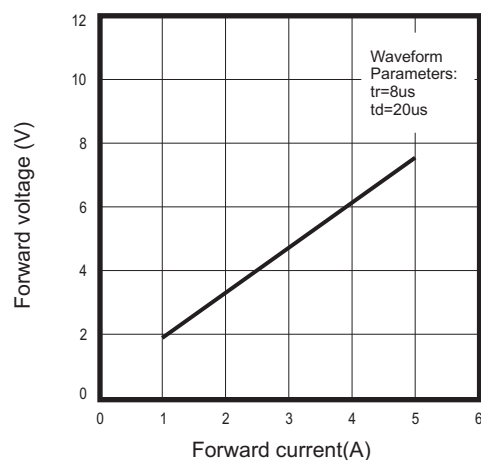
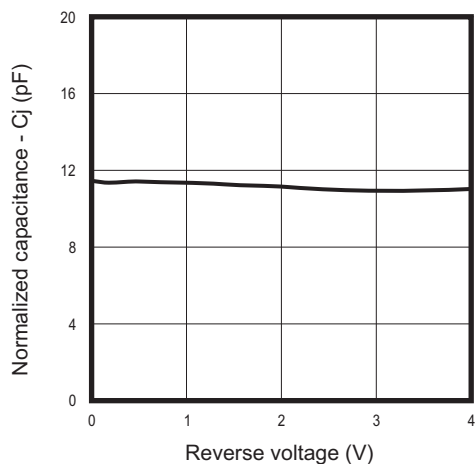
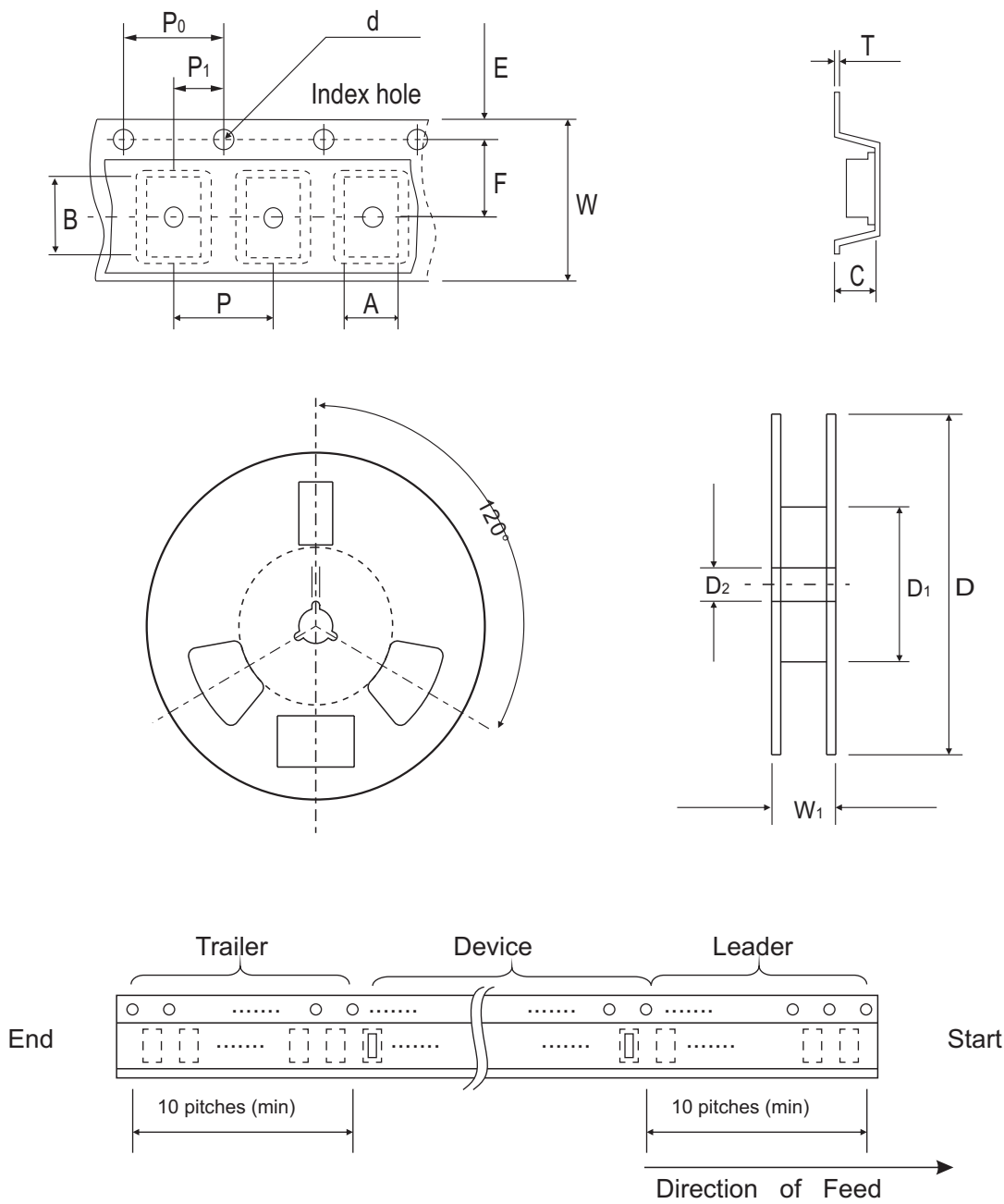


Fig.5 - Junction capacitance vs. reverse voltage



Reel Taping Specification



SOD-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.90 ± 0.10	1.94 ± 0.10	0.73 ± 0.10	1.50 ± 0.10	178 ± 1.00	54.40 ± 0.40	13.00 ± 0.20
	(inch)	0.035 ± 0.004	0.076 ± 0.004	0.029 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

SOD-523	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 ± 0.30 / - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.004	0.158 ± 0.004	0.079 ± 0.004	0.315 ± 0.012 / - 0.004	0.374 ± 0.039

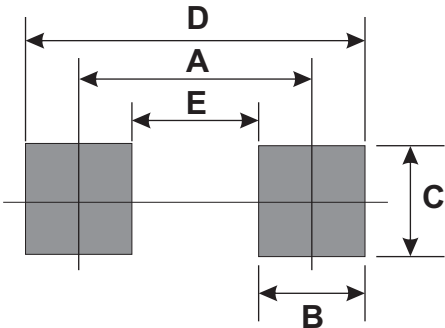
Marking Code

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 Packaging

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