

CPDH3V3UP-HF

RoHS Device

Halogen Free

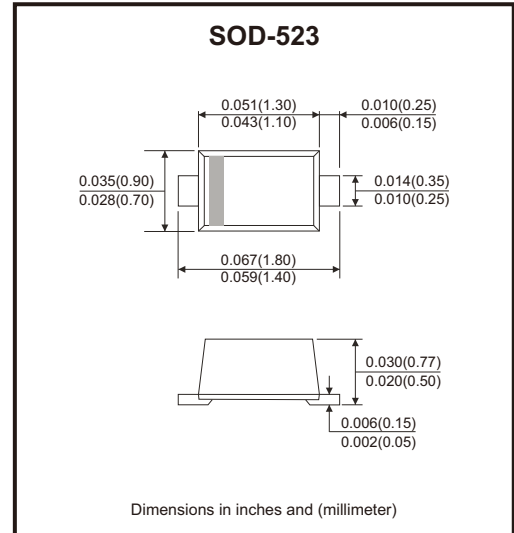


Features

- IEC 61000-4-2 Level 4 ESD protection.
- 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.
- Mounting position: Any.
- Polarity: Indicated by cathode band.



Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak pulse power (tp = 8/20μs)	P _{PP}	40	W
Peak pulse current (tp = 8/20μs)	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 range	T _j	-55 to +125	°C
Storage temperature range	T _{STG}	-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 _{RWM}			3.3	V
Punch-through voltage	I _{PT} = 2μA	V _{PT}	3.5			V
Snap-back voltage	I _{SB} = 50mA	V _{SB}	2.8			V
Reverse leakage current	V _{RWM} = 3.3V	I _R		0.05	0.5	μA
Clamping voltage	I _{PP} = 1A, tp = 8/20μs	V _C			5.5	V
	I _{PP} = 5A, tp = 8/20μs	V _C			8.0	V
Reverse clamping voltage	I _{PPR} = 1A, tp = 8/20μs	V _{CR}			2.4	V
Junction capacitance	V _R = 0V, f = 1MHz	C _j		12	16	pF

Rating and Characteristic Curves (CPDH3V3UP-HF)

Fig.1 - Non-Repetitive Max. Peak Pulse Power vs. Pulse Time

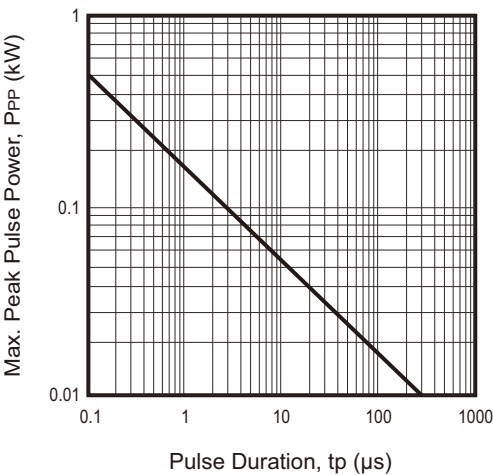


Fig.2 - Power Rating Derating Curve

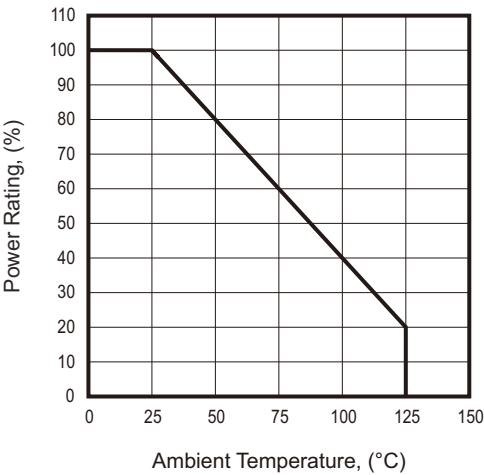


Fig.3 - Clamping Voltage vs. Peak Pulse Current

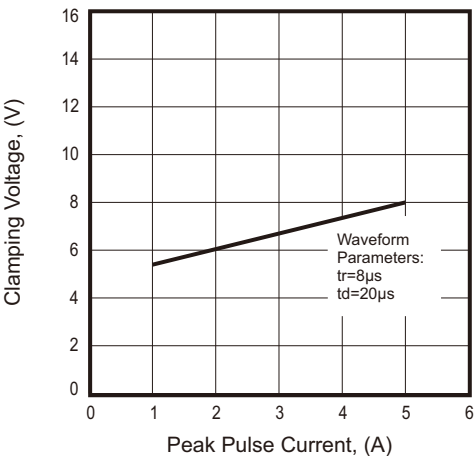


Fig.4 - Forward Voltage vs. Forward Current

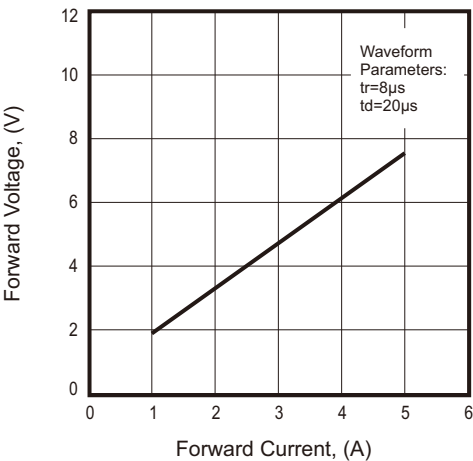
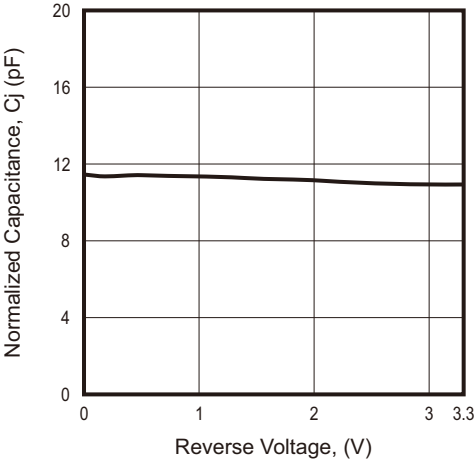
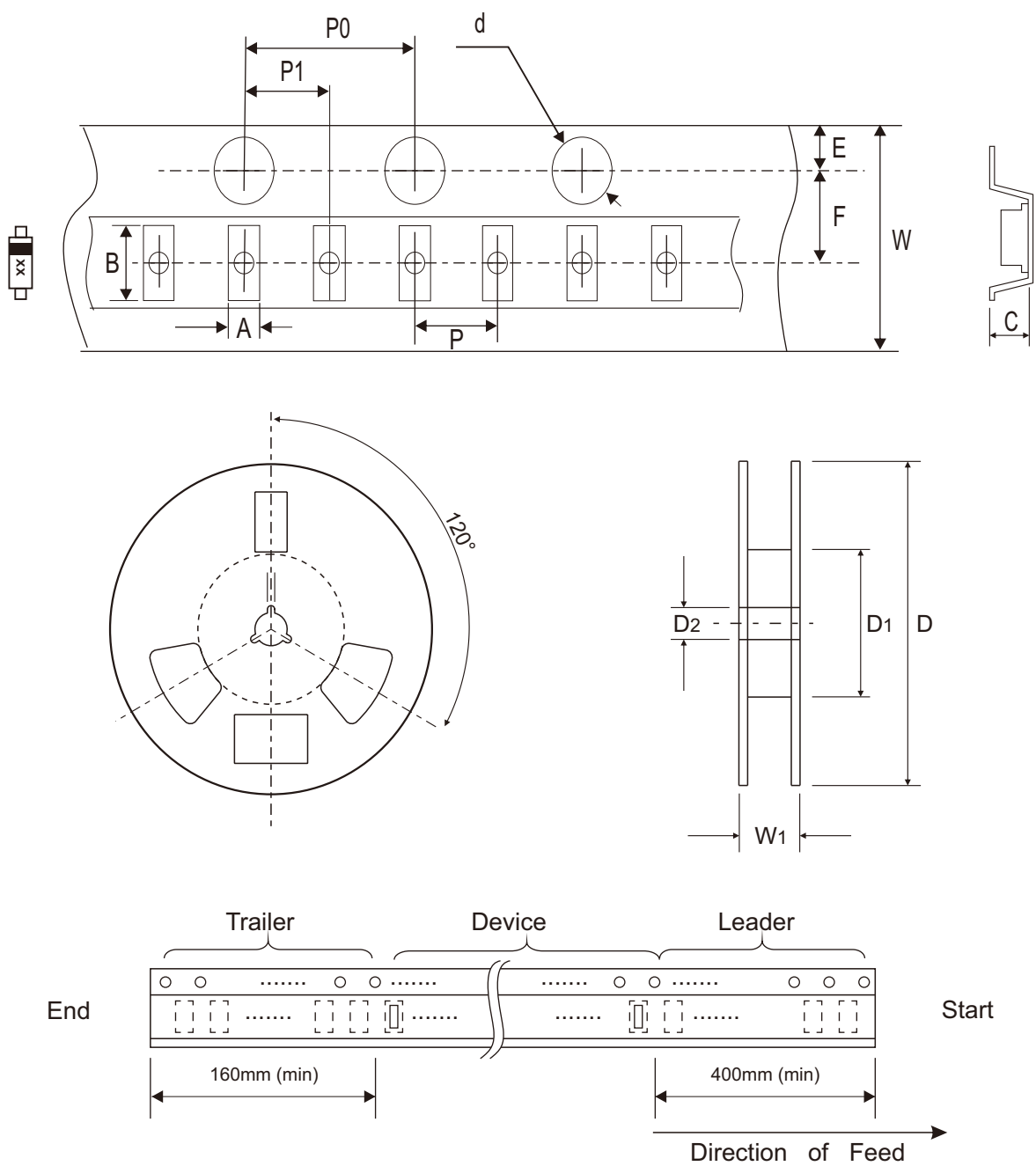


Fig.5 - Junction Capacitance vs. Reverse Voltage



Reel Taping Specification



SOD-523	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	0.90 ± 0.05	1.94 ± 0.05	0.73 ± 0.05	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.035 ± 0.002	0.076 ± 0.002	0.029 ± 0.002	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-523	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	2.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 / - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.079 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 / - 0.004	0.484 ± 0.039

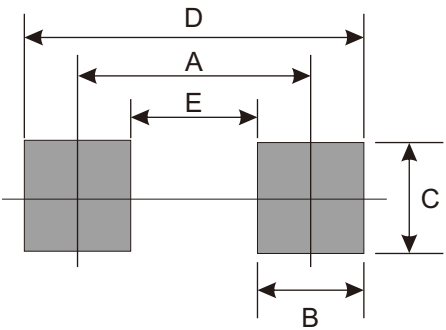
Marking Code

Part Number	Marking Code
CPDH3V3UP-HF	E3



Suggested P.C.B. PAD Layout

SIZE	SOD-523	
	(mm)	(inch)
A	1.42	0.056
B	0.60	0.024
C	0.70	0.028
D	2.02	0.080
E	0.82	0.032



Standard Packaging

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