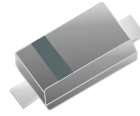


CPDH3V3AU-HF

RoHS Device
Halogen Free



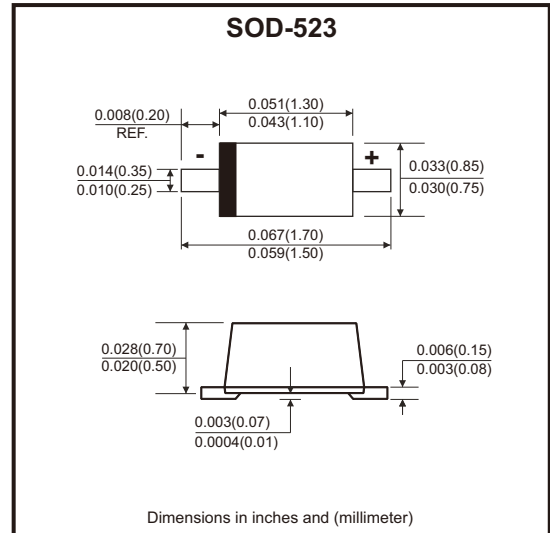
Features

- Uni-directional ESD protection diode.
- High ESD protection level.
- Working voltage: 3.3V.
- Low clamping voltage.
- Low leakage current.

Mechanical data

- Case: SOD-523, molded plastic.
- Polarity: Indicated by cathode end.
- Mounting position: Any.

Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu\text{s}$	P_{PP}	60	W
Peak pulse current	$T_P = 8/20\mu\text{s}$	I_{PP}	4	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	± 20	kV
Operating temperature		T_J	-55 to +125	$^{\circ}\text{C}$
Storage temperature range		T_{STG}	-55 to +150	$^{\circ}\text{C}$

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Working peak reverse voltage		V_{RWM}			3.3	V
Forward voltage	$I_F = 15\text{mA}$	V_F			1.2	V
Breakdown voltage	$I_T = 1\text{mA}$	V_{BR}	4.2			V
Reverse leakage current	$V_{RWM} = 3.3\text{V}$	I_R			0.1	μA
Clamping voltage	$I_{PP} = 1\text{A}, T_P = 8/20\mu\text{s}$	V_C		9	11	V
	$I_{PP} = 4\text{A}, T_P = 8/20\mu\text{s}$	V_C		13	15	
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	C_J		0.36		pF

Typical Rating and Characteristic Curves (CPDH3V3AU-HF)

Fig.1 - 8/20μs Peak Pulse Current Waveform Acc. IEC 61000-4-5

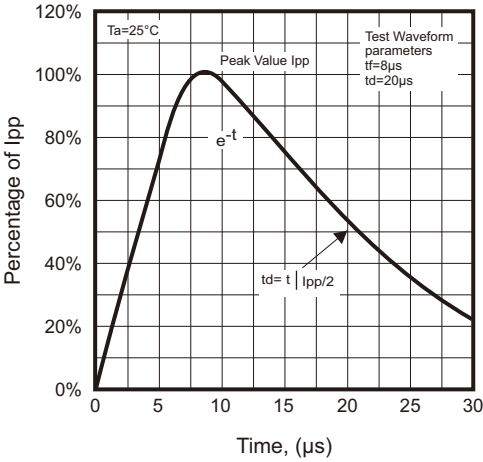


Fig.2 - Power Rating Derating Curve

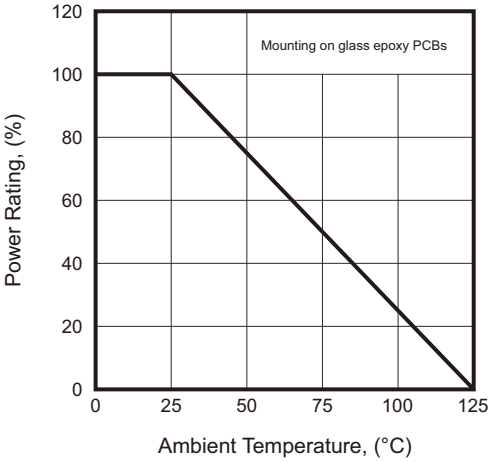


Fig.3 - Clamping Voltage vs. Peak Pulse Current

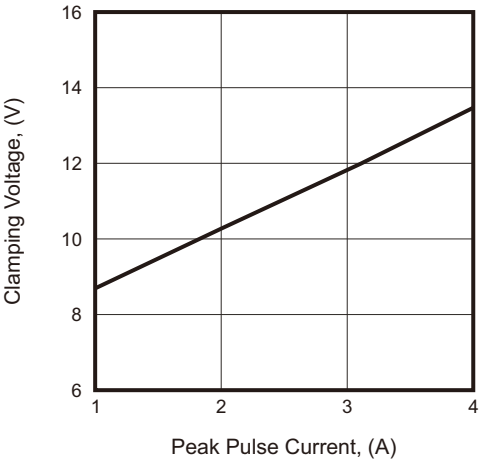


Fig.4 - Capacitance Between Terminals Characteristics

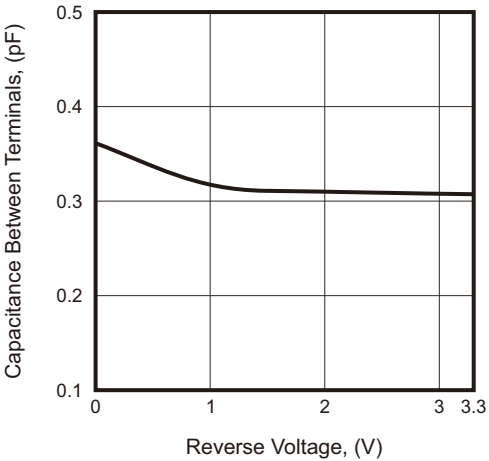
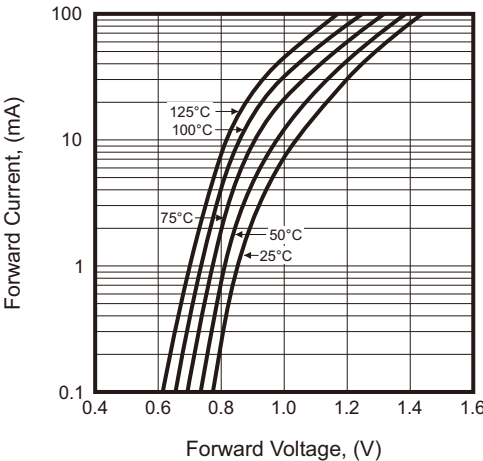
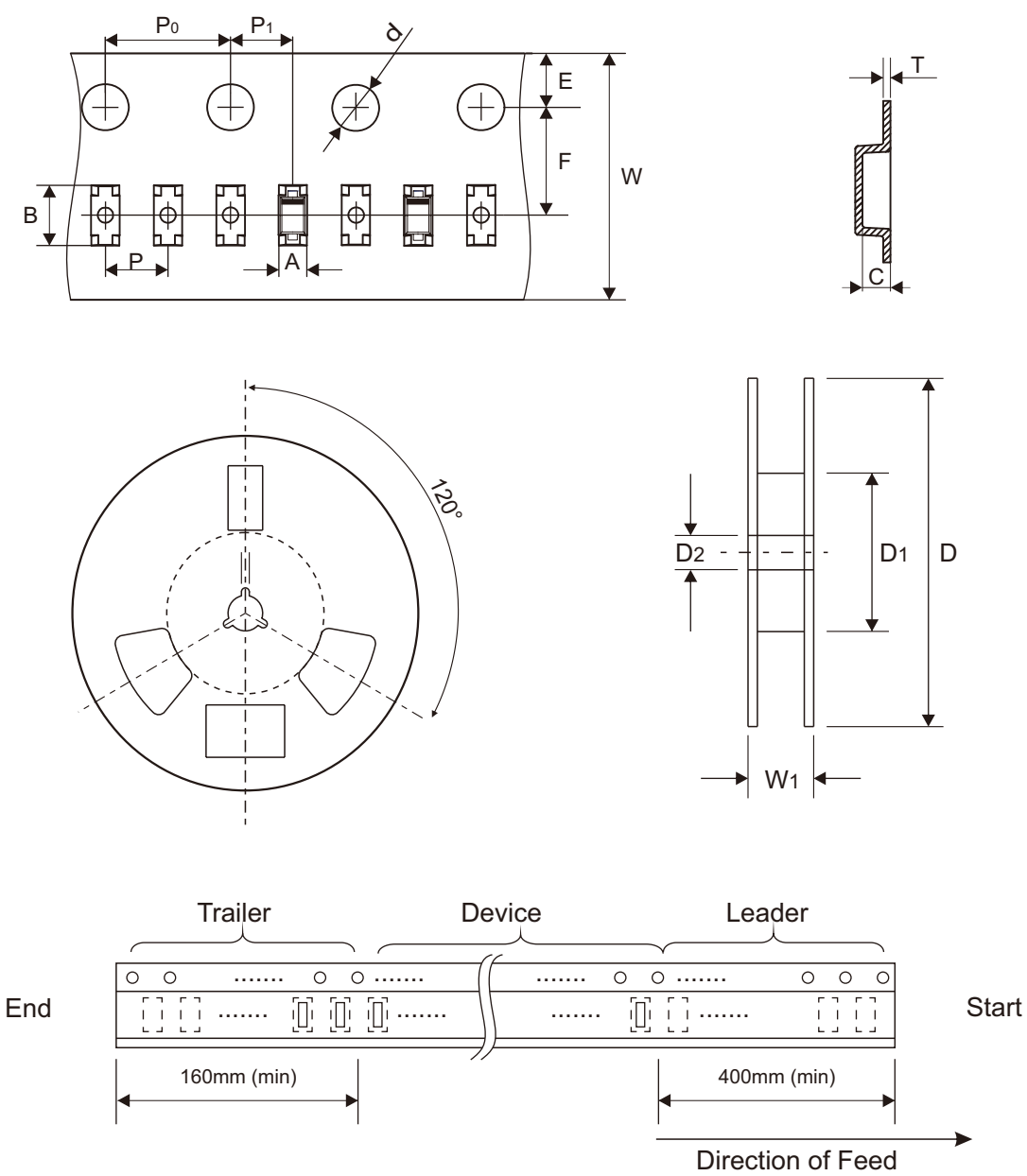


Fig.5 - Forward Characteristic



Reel Taping Specification



SOD-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.95 ± 0.05	1.88 ± 0.05	0.73 ± 0.05	$1.50 + 0.10 - 0.00$	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.037 ± 0.002	0.074 ± 0.002	0.029 ± 0.002	$0.059 + 0.004 - 0.000$	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-523	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	2.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.05	$8.00 + 0.30 - 0.10$	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.079 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.002	$0.315 + 0.012 - 0.004$	0.484 ± 0.039

Marking Code

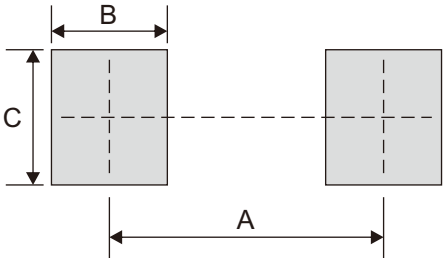
Part Number	Marking Code
CPDH3V3AU-HF	E3A



 = Cathode band

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



Standard Packaging

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