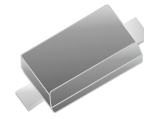


CPDH3V3-HF

RoHS Device
Halogen Free

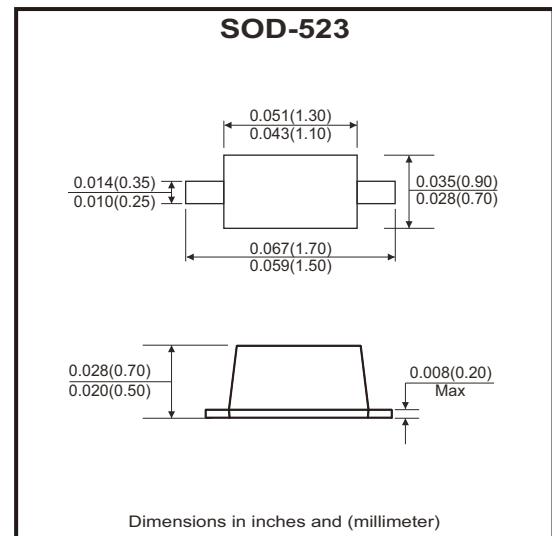


Features

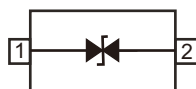
- IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact).
- IEC61000-4-4 (EFT) 40A (5/50ns).
- Protects one directional I/O line.
- Low clamping voltage.
- Working voltages: 3.3V
- Low leakage current.
- Low capacitance.

Mechanical data

- Case: SOD-523 package.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.



Circuit Diagram



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

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (air)	ESD	± 30	kV
ESD per IEC 61000-4-2 (contact)		± 30	
Peak pulse power (8/20 μ s)	P _{PP}	414	W
Peak pulse current (8/20 μ s)	I _{PP}	23	A
Operating temperature range	T _{OPT}	-55 to +150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse working voltage		V_{RWM}			3.3	V
Reverse breakdown voltage	$I_T = 1\text{mA}$	V_{BR}	4.0		6.0	V
Reverse leakage current	$V_{RWM} = 3.3\text{V}$	I_R			1.0	μA
Clamping voltage	$I_{PP} = 1\text{A}$, $T_P = 8/20\mu\text{s}$	V_C			6.5	V
Clamping voltage	$I_{PP} = 23\text{A}$, $T_P = 8/20\mu\text{s}$	V_C		13	18	V
Junction capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_J		35	45	pF

Typical Rating and Characteristic Curves (CPDH3V3-HF)

Fig.1 - Pulse Waveform

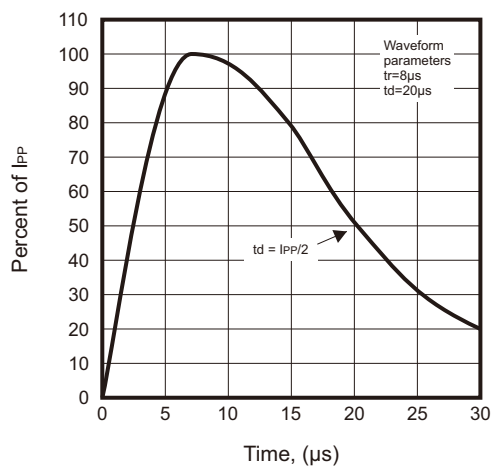


Fig.2 - Power Derating Curve

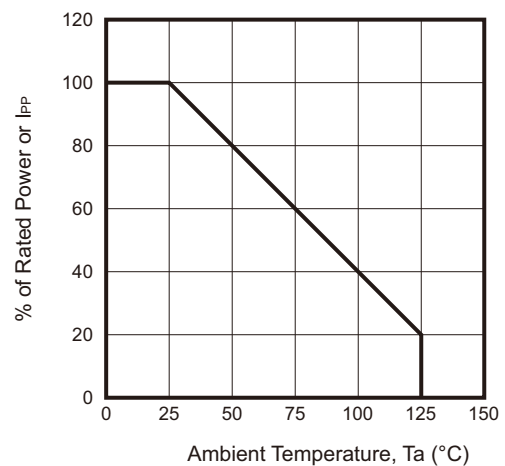


Fig.3 - Voltage vs Capacitance

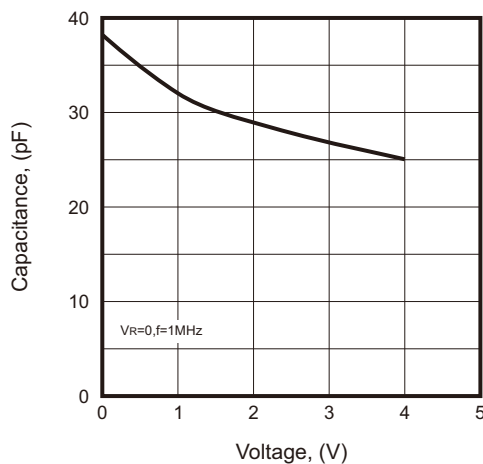
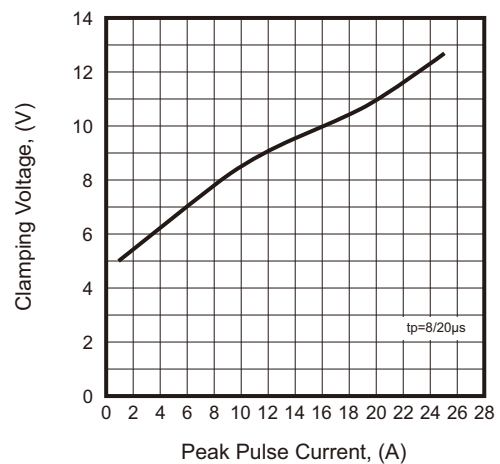
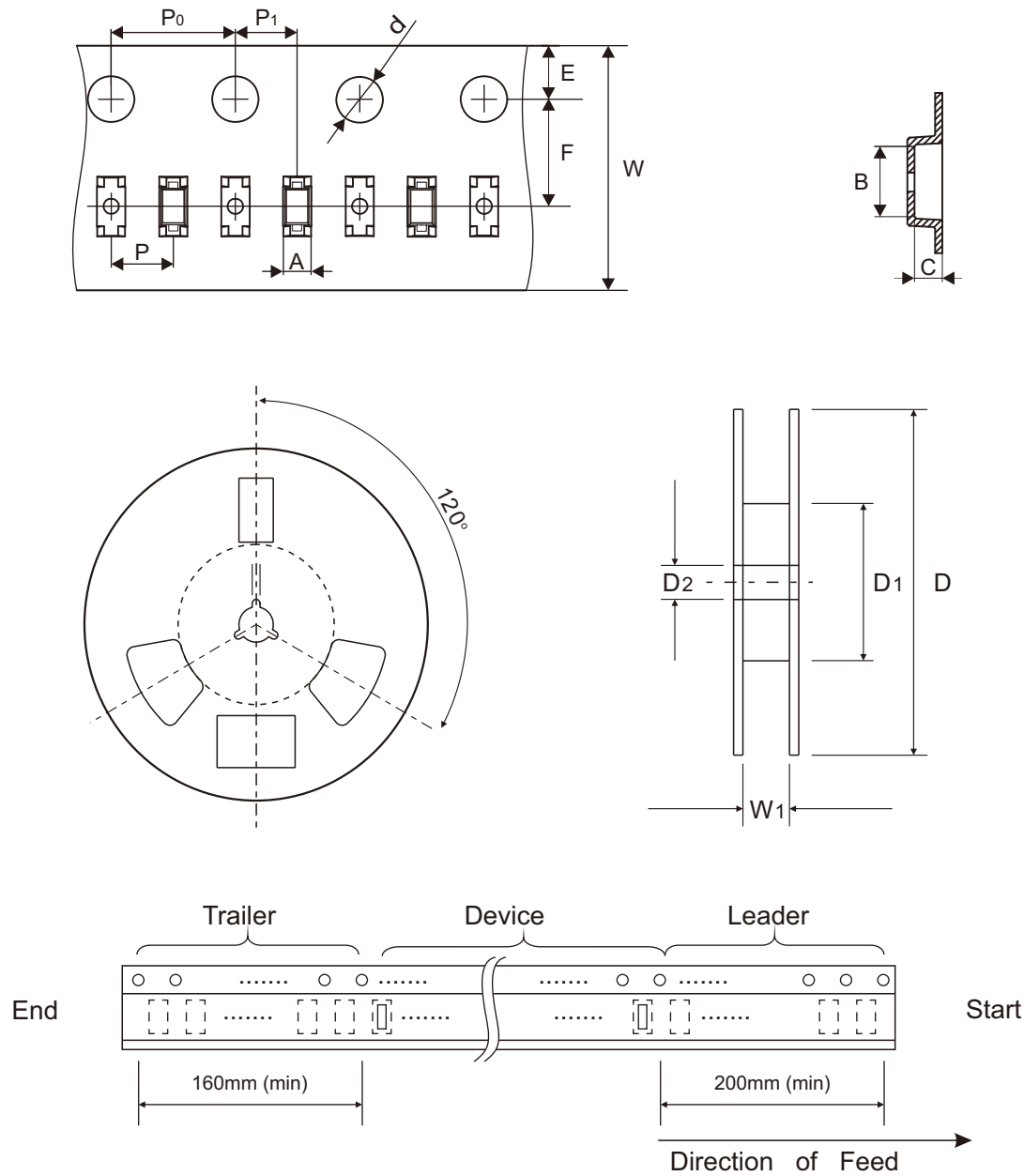


Fig.4 - Clamping Voltage vs Peak Pulse Current



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

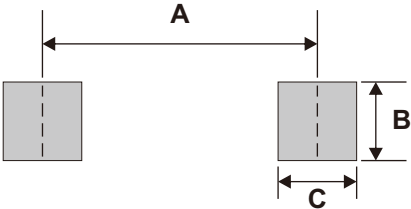
Marking Code

Part Number	Marking Code
CPDH3V3-HF	3CM



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