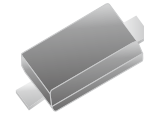


## CPDH3V3-HF

**RoHS Device**  
**Halogen Free**

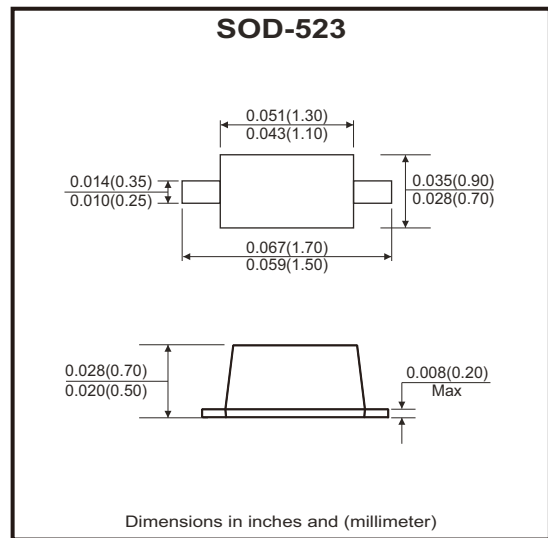


### Features

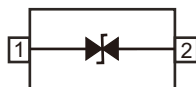
- IEC61000-4-2 (ESD)  $\pm 15\text{kV}$  (air),  $\pm 8\text{kV}$  (contact).
- IEC61000-4-4 (EFT) 40A (5/50ns).
- Peak power dissipation: 400W (8/20 $\mu\text{s}$ ).
- Protects one directional I/O line.
- Low clamping voltage.
- Working voltages: 3.3V
- Low leakage current.
- Low capacitance.

### 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)	$V_{ESD}$	$\pm 30$	kV
ESD per IEC 61000-4-2 (contact)		$\pm 30$	
Peak pulse power (8/20 $\mu\text{s}$ )	$P_{PP}$	350	W
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	$\mu\text{A}$
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	16	V
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	$C_J$		35	45	pF

## Rating and Characteristic Curves (CPDH3V3-HF)

Fig.1 - Pulse Waveform

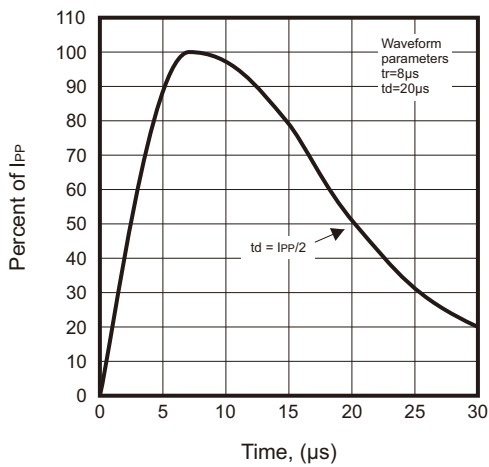
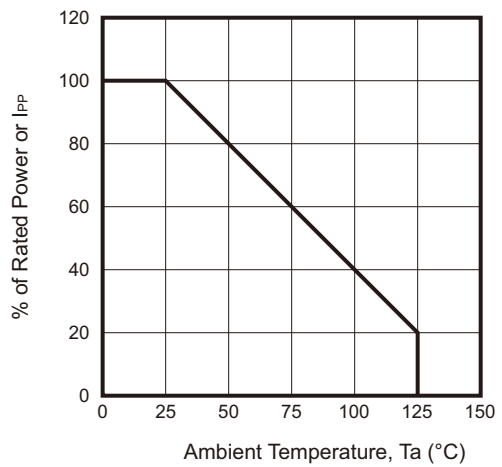
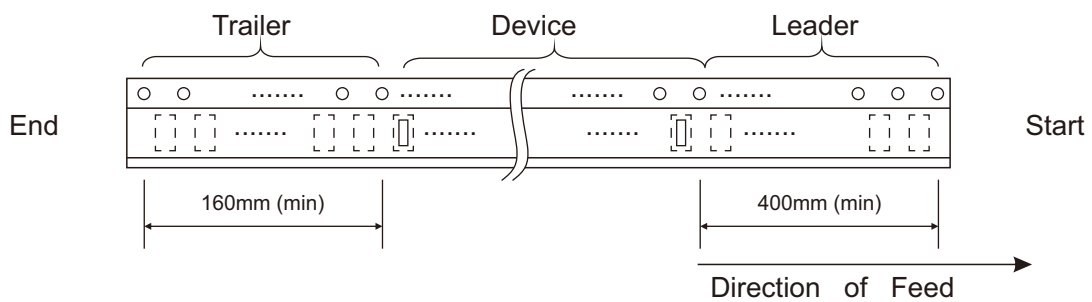
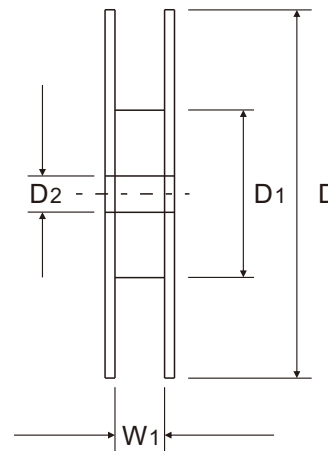
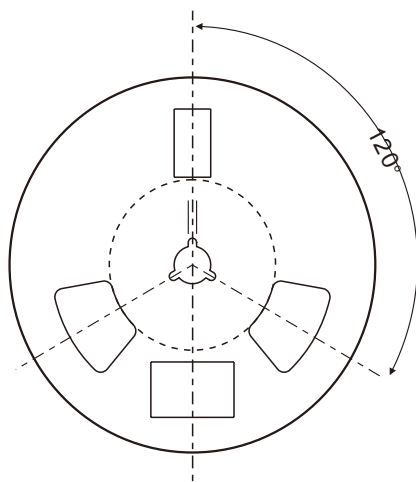
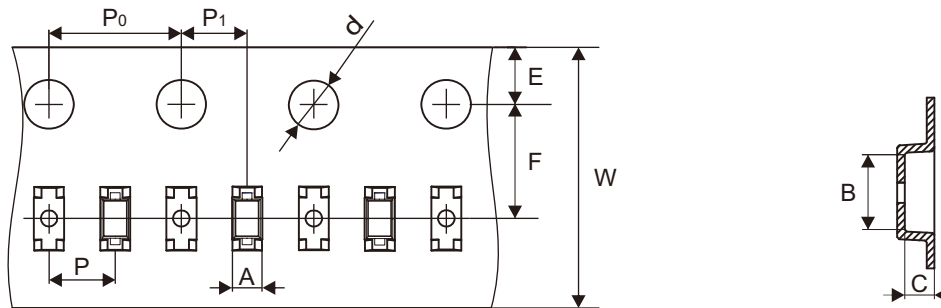


Fig.2 - Power Derating Curve



## 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

Company reserves the right to improve product design, functions and reliability without notice. REV:A

## Marking Code

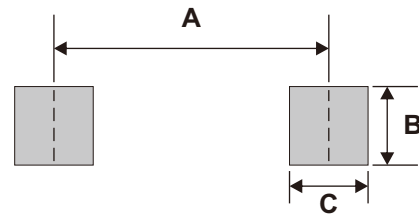
Part Number	Marking Code
CPDH3V3-HF	3CM



xxx = Product type marking code

## Suggested PAD Layout

SIZE	SOD-523	
	(mm)	(inch)
A	1.40	0.055
B	0.40	0.016
C	0.40	0.016



Note: 1. The pad layout is for reference purposes only.

## Standard Packaging

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