

CPDH5V0P-HF

RoHS Device

Halogen Free

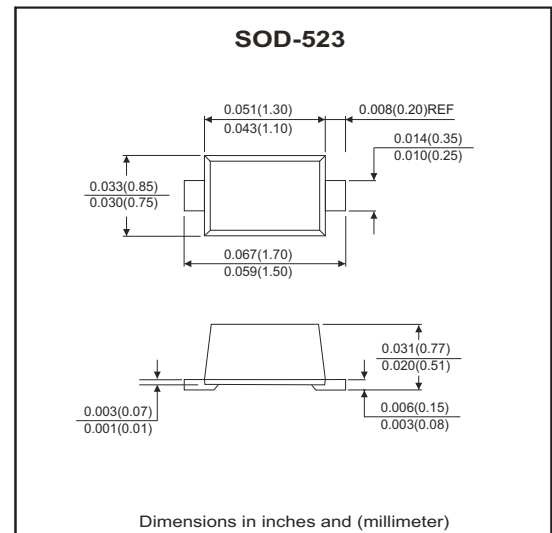


Features

- IEC 61000-4-2 (ESD): Contact $\pm 12\text{KV}$.
- Bi-directional ESD protection of one line.
- Fast response time.
- Low Leakage current.
- Low reverse clamping voltage.
- Low capacitance: 3pF(Typ.)

Mechanical data

- Case: SOD-523 standard package, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Marking Code: HD
- Mounting position: Any
- Weight: 0.0012 grams(approx.).



Circuit Diagram



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

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air)	$V_{ESD}^{(1)}$	± 12	KV
ESD per IEC 61000-4-2 (Contact)		± 12	
JESD22-A114-B ESD Voltage ESD Voltage		± 16 ± 0.4	
Peak Pulse Power	$P_{PP}^{(2)}$	39	W
Peak Pulse Current	$I_{PP}^{(2)}$	3	A
Lead Solder Temperature	T_L	260	°C
Junction temperature range	T_J	-40 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 stand-off voltage		$V_{RWM}^{(3)}$			5	V
Reverse leakage current	$V_{RWM} = 5\text{ V}$	I_R			1	μA
Breakdown voltage	$I_T = 1\text{ mA}$	$V_{(BR)}$	5.6		8	V
Clamping voltage	$I_{PP} = 3\text{ A}$	$V_C^{(2)}$			13	V
Junction capacitance	$V_R = 0\text{ V}$, $F = 1\text{ MHz}$	C_J		3		pF

Notes: 1. Device stressed with ten non-repetitive ESD pulses.
 2. Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.
 3. Other voltages available upon request.

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

REV:A

RATING AND CHARACTERISTIC CURVES (CPDH5V0P-HF)

Fig.1 - 8/20us Peak Pulse Current
Waveform ACC. IEC 61000-4-5

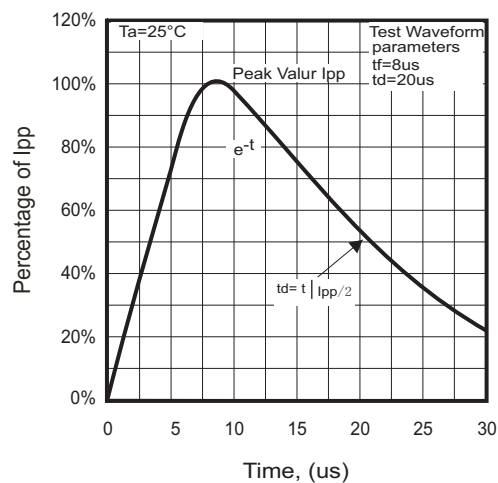


Fig.2 - Typical Capacitance Characteristics

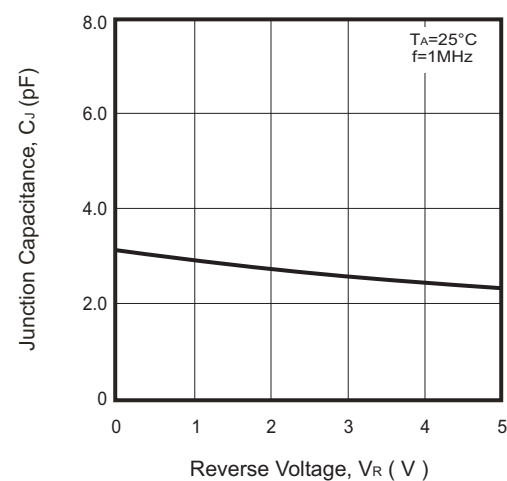
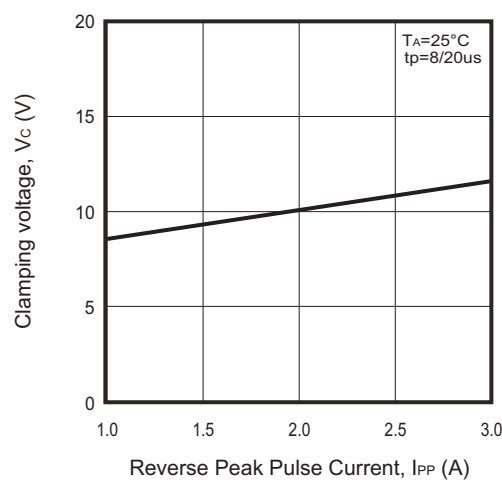
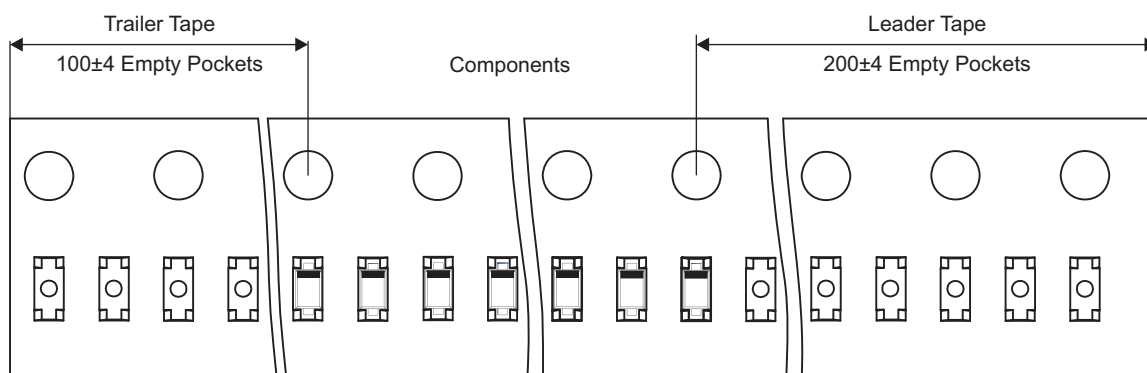
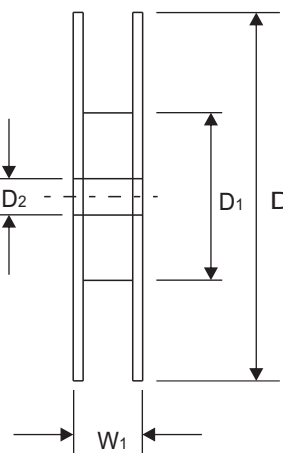
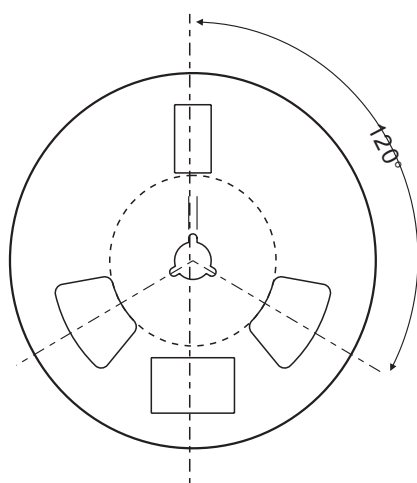
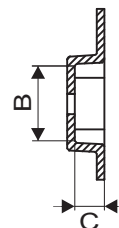
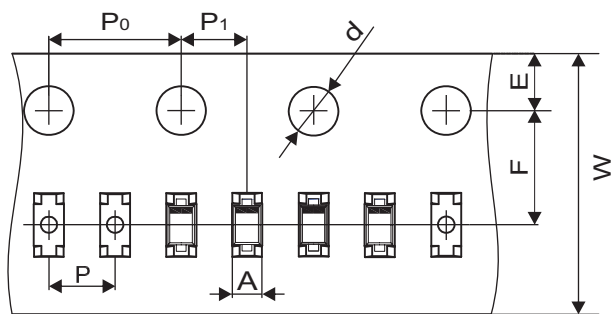


Fig.3 - Clamping Voltage Vs.
Peak Pulse Current



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D ₁	D ₂
SOD-523	(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

	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
SOD-523	(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	12.30 ± 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	0.484 ± 0.039

Marking Code

Part Number	Marking Code
CPDH5V0P-HF	HD

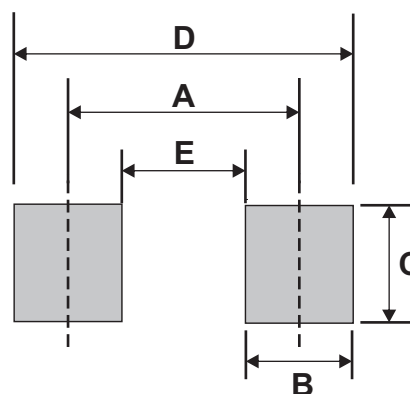


HD = Product type marking code

• = Halogen Free

Suggested 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	8,000	7