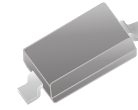


## CPDV3V3SP-HF Thru. CPDV24V0SP-HF

### RoHS Device

### Halogen Free



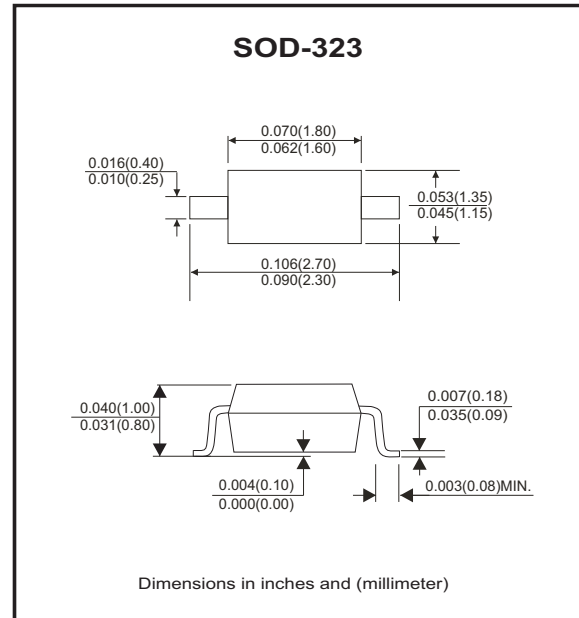
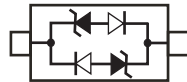
### Features

- IEC61000-4-2 Level 4 ESD protection.
- IEC61000-4-4 Level 4 FET protection.
- IEC61000-4-5 (Lightning) 12A (8/20 $\mu$ S)
- Protects one I/O line (bi-directional)
- Low clamping voltage.
- Low leakage current.

### Mechanical data

- Case: JEDEC SOD-323 package.
- Molding Compound Flammability Rating: UL 94V-0.
- Weight: 0.005 gram(approx.).

### Circuit Diagram



### Maximum Ratings (at T<sub>A</sub>=25°C unless otherwise Specified)

Parameter	Symbol	Value	Unit
Peak pulse power ( t <sub>p</sub> = 8/20 $\mu$ s waveform)	PPP	350	W
ESD per IEC 61000-4-2(Contact) ESD per IEC 61000-4-2(Air)	VESD	$\pm 8$ $\pm 15$	kV
Lead Soldering Temperature	TL	260 (10 sec.)	°C
Operating temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +150	°C

### Electrical Characteristics Per Line (at T<sub>A</sub>=25°C unless otherwise Specified)

Part No.	V <sub>RWN</sub> (V) (Max)	V <sub>(BR)</sub> (V) (Min)	I <sub>T</sub> (mA)	V <sub>C</sub> (V) @I <sub>PP</sub> =1A	V <sub>C</sub> (V)		I <sub>R</sub> (uA) (Max)	C <sub>T</sub> (pF) (Typ)	C <sub>J</sub> (pF) (Typ)
					(Max)	I <sub>PP</sub> (A)			
CPDV3V3SP-HF	3.3	4	1	7.5	13.9	8	40	1.0	0.4
CPDV5V0SP-HF	5	6	1	9.8	18.3	8	5	1.0	0.4
CPDV8V0SP-HF	8	8.5	1	13.4	18.5	8	2	1.0	0.4
CPDV12V0SP-HF	12	13.3	1	19.0	28.6	6	1	1.0	0.4
CPDV15V0SP-HF	15	16.7	1	24.0	31.8	5	1	1.0	0.4
CPDV24V0SP-HF	24	26.7	1	43.0	56.0	3	1	1.0	0.4

Note: 1. The Total capacitance, C<sub>T</sub> of the product @ F=1MHZ, applied 0VDC.  
2. The Junction capacitance, C<sub>J</sub> of the single Dice @ F=1MHZ, applied 0VDC.

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

REV: B

## Rating and Characteristic Curves (CPDV3V3SP-HF Thru. CPDV24V0SP-HF)

Fig.1 - 8/20 $\mu$ s Peak Pulse Current

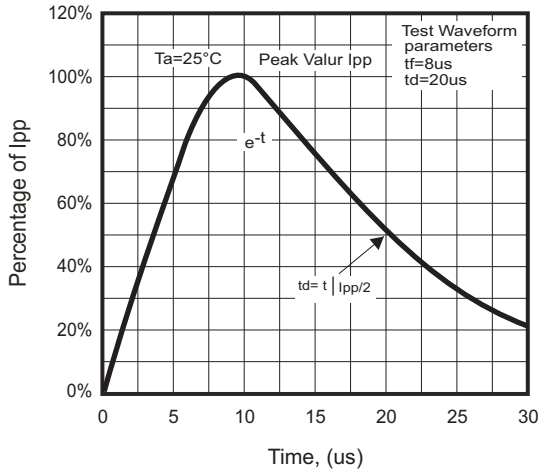


Fig.2 - Power Derating Curve

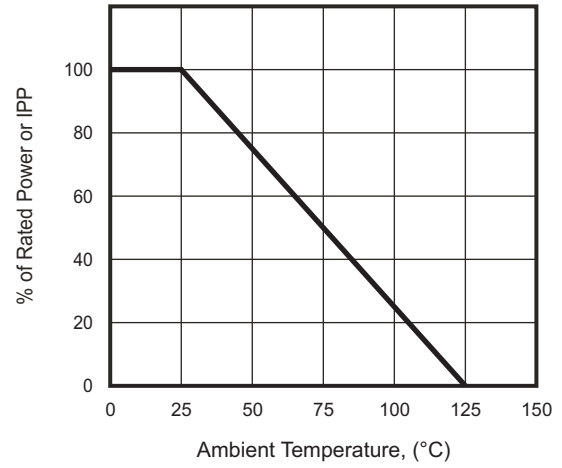


Fig.3 - Typical Capacitance vs. Reverse Voltage

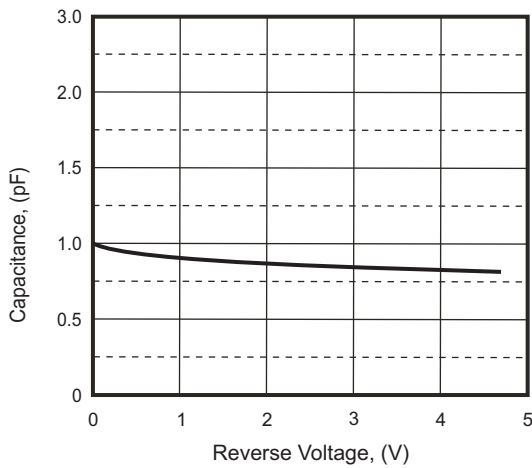


Fig.4 - Clamping Voltage vs. Peak Pulse Current

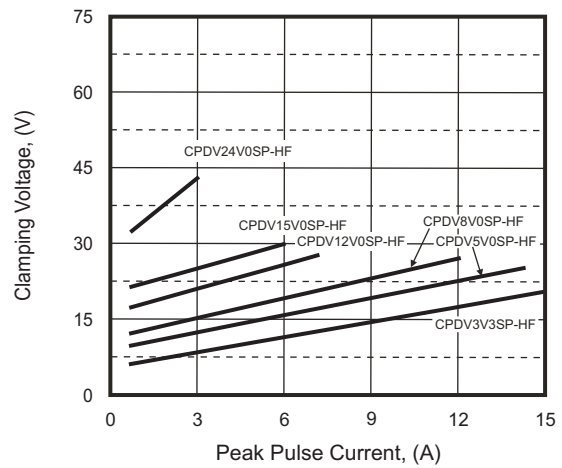
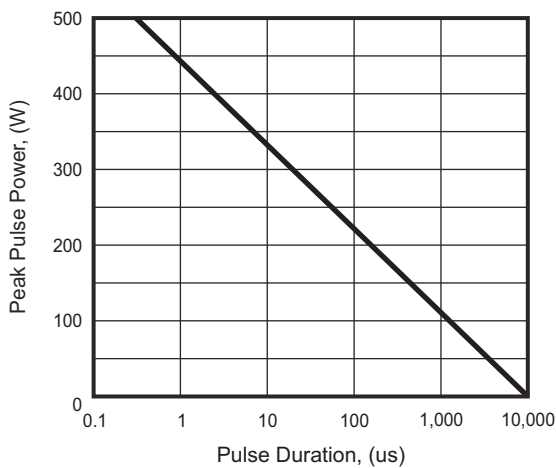
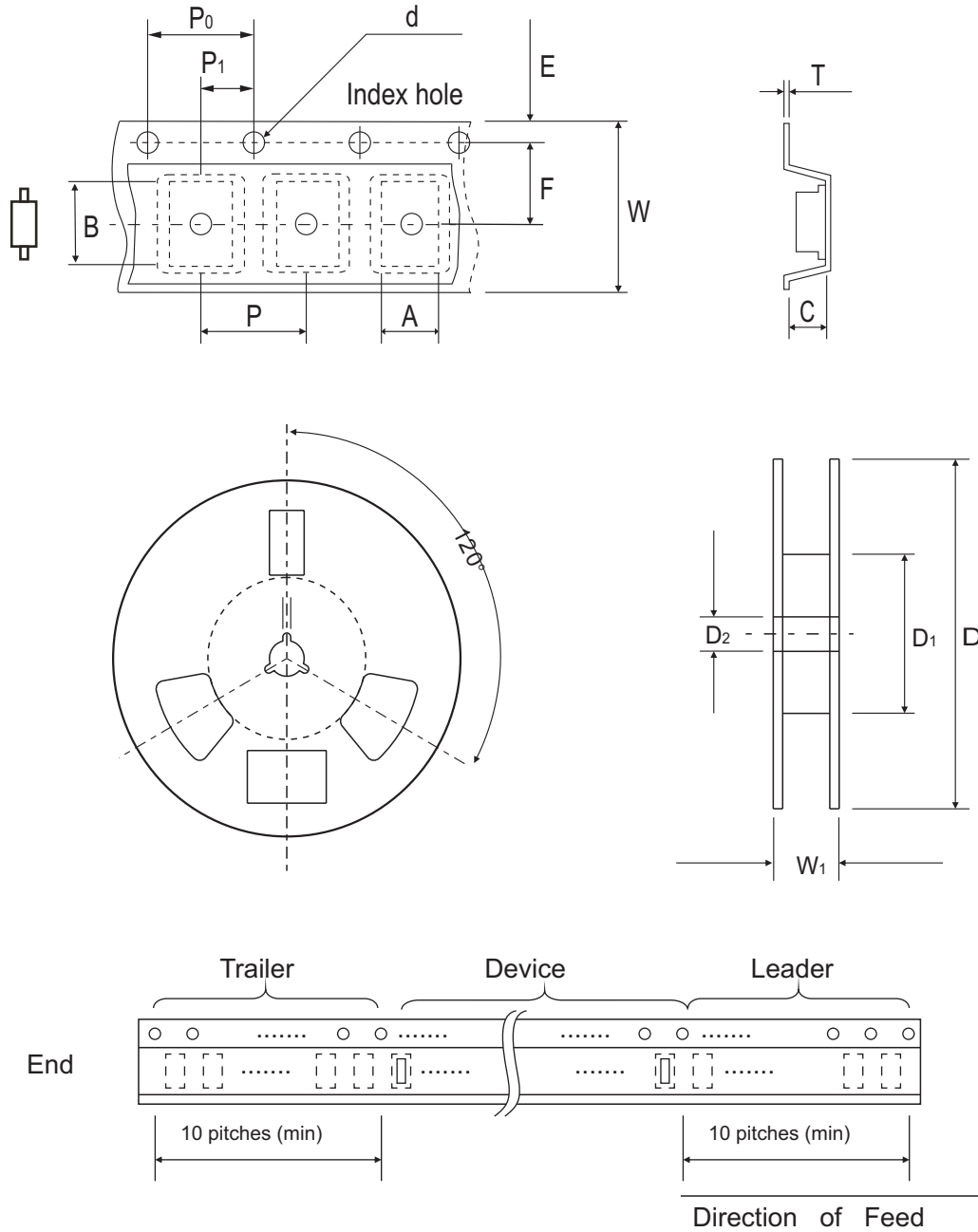


Fig.5 - Peak Pulse Power vs. Pulse Time



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## Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	1.49 ± 0.10	2.95 ± 0.10	1.1 ± 0.10	1.55 ± 0.10	178 MAX.	50.0 MIN.	13.0 ± 0.20
	(inch)	0.059 ± 0.004	0.116 ± 0.004	0.043 ± 0.004	0.061 ± 0.004	7.008 MAX.	1.969 MIN.	0.512 ± 0.008

SOD-323	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.40 Max.	8.00 ± 0.30	14.4 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.016 Max.	0.315 ± 0.012	0.567 MAX.

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REV: B

## Marking Code

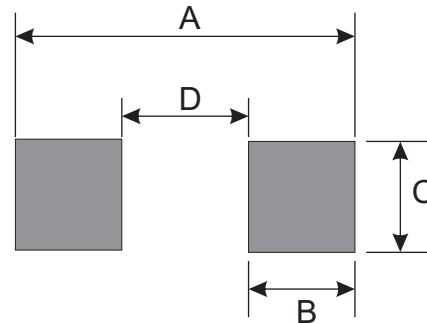
Part Number	Marking Code
CPDV3V3SP-HF	CC
CPDV5V0SP-HF	AC
CPDV8V0SP-HF	BC
CPDV12V0SP-HF	DC
CPDV15V0SP-HF	EC
CPDV24V0SP-HF	HC



XX = Product type marking code

## Suggested PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.85	0.112
B	0.63	0.025
C	0.83	0.033
D	1.60	0.063



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOD-323	3,000	7