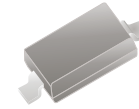


CPDV3V3SP-HF Thru. CPDV24V0SP-HF

RoHS Device

Halogen Free



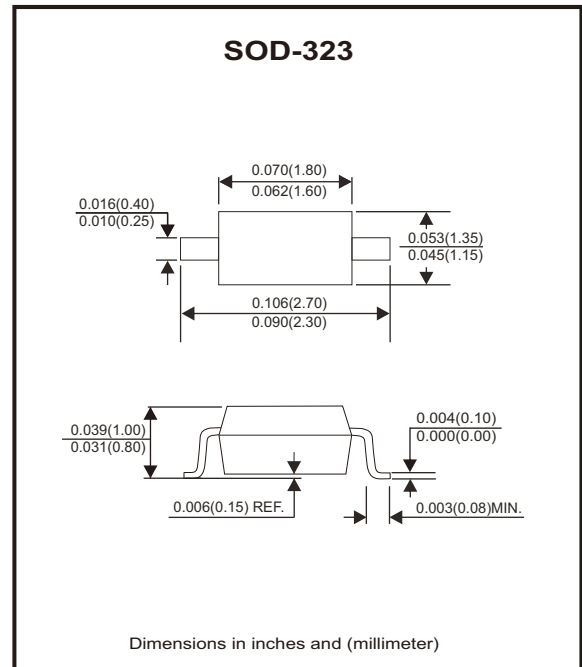
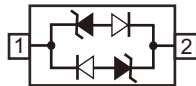
Features

- IEC61000-4-2 Level 4 ESD protection.
- IEC61000-4-4 Level 4 FET protection.
- Protects one I/O line.
- Low clamping voltage.
- Low leakage current.

Mechanical data

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

Circuit Diagram



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

Parameter		Symbol	Value	Unit
Peak pulse power ($t_p = 8/20\mu\text{s}$ waveform) (Note 1)		P _{PP}	350	W
ESD per IEC 61000-4-2(Air)	CPDV3V3SP-HF,CPDV5V0SP-HF CPDV8V0SP-HF,CPDV12V0SP-HF CPDV15V0SP-HF	V _{ESD}	±30	kV
ESD per IEC 61000-4-2(Contact)			±30	
ESD per IEC 61000-4-2(Air)	CPDV18V0SP-HF,CPDV24V0SP-HF	V _{ESD}	±25	kV
ESD per IEC 61000-4-2(Contact)			±15	
Lead Soldering Temperature		T _L	260 (10 sec.)	°C
Operating temperature range		T _J	-55 to +150	°C
Storage temperature range		T _{STG}	-55 to +150	°C

Notes:

1. 350 Watts peak pulse power: 5V
2. The total capacitance, C_T of the product@V_R=0V, f=1MHz

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

Part No.	V_{RWN} (V) (Max)	$V_{(BR)}$ (V) (Min)	I_T (mA)	V_C (V) @ $I_{PP}=1\text{A}$	V_C (V)		I_R (μA) (Max)	C_T (pF) (Typ) (Note2)
					(Max)	I_{PP} (A)		
CPDV3V3SP-HF	3.3	3.5	1	6.3	24	13	0.1	1
CPDV5V0SP-HF	5	6	1	9.8	25	14	5	1
CPDV8V0SP-HF	8	8.5	1	13.4	26	12	2	1
CPDV12V0SP-HF	12	13.3	1	19	30	7	1	1
CPDV15V0SP-HF	15	16.7	1	24	35	5	1	1
CPDV18V0SP-HF	18	20	1	27	40	5	1	1
CPDV24V0SP-HF	24	26.7	1	43	56	3	1	1

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

Fig.1 - 8/20 μs Peak Pulse Current

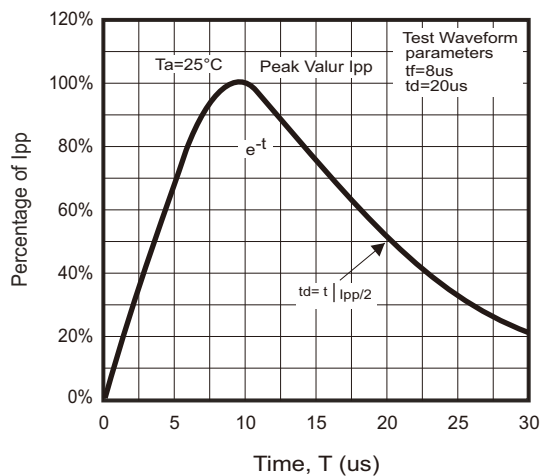


Fig.2 - Power Derating Curve

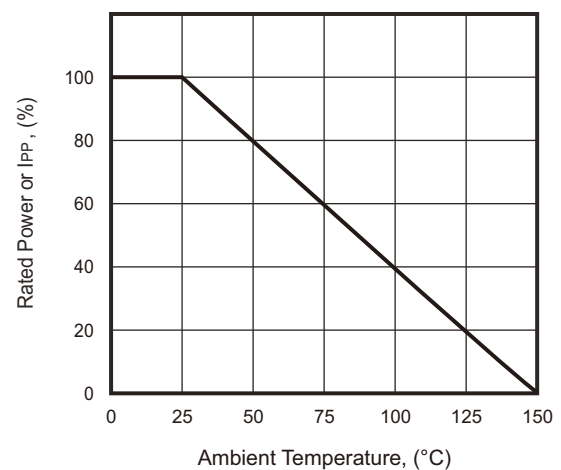
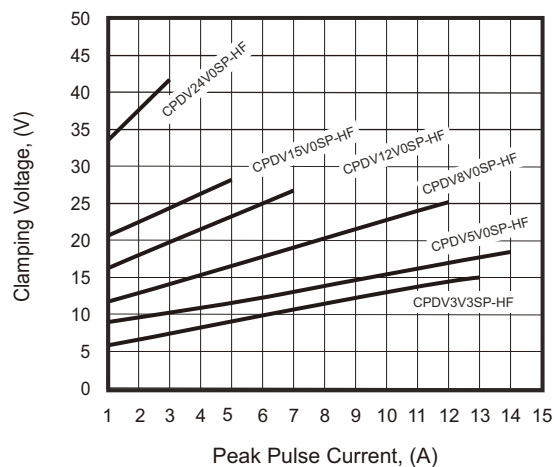
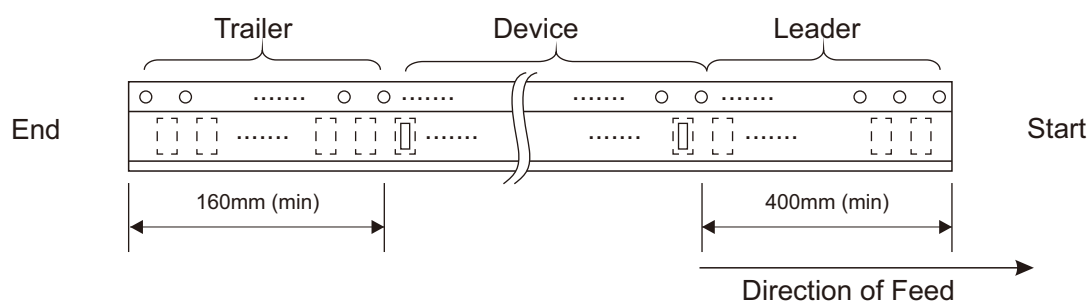
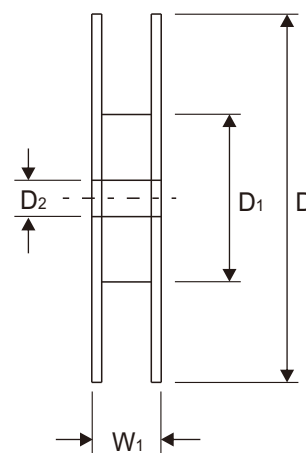
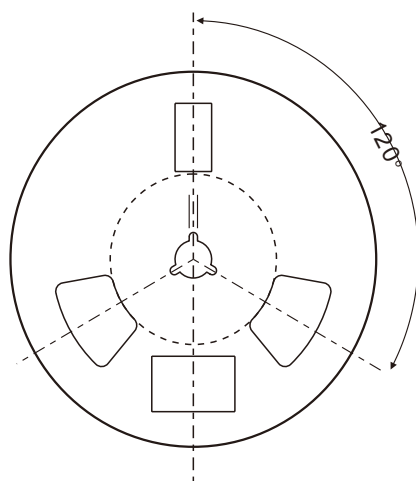
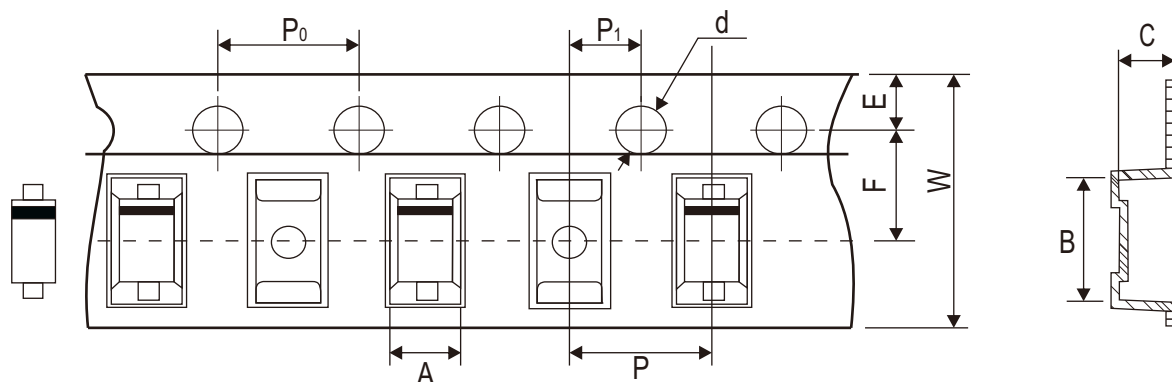


Fig.3 - Clamping Voltage vs. Peak Pulse Current



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.49 ± 0.10	2.95 ± 0.10	1.10 ± 0.10	1.55 ± 0.10	178.00 MAX.	50.00 MIN.	13.00 ± 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 ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.40 Max.	8.00 ± 0.30	14.40 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.016 Max.	0.315 ± 0.012	0.567 MAX.

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

Marking Code

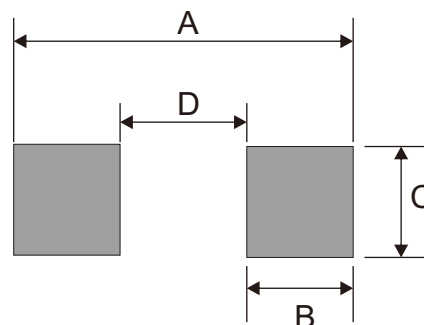
Part Number	Marking Code
CPDV3V3SP-HF	CC
CPDV5V0SP-HF	AC
CPDV8V0SP-HF	BC
CPDV12V0SP-HF	DC
CPDV15V0SP-HF	EC
CPDV18V0SP-HF	FC
CPDV24V0SP-HF	HC



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