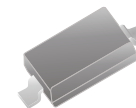


CPDV3V0SP-HF Thru. CPDV24V0SP-HF

RoHS Device
Halogen Free

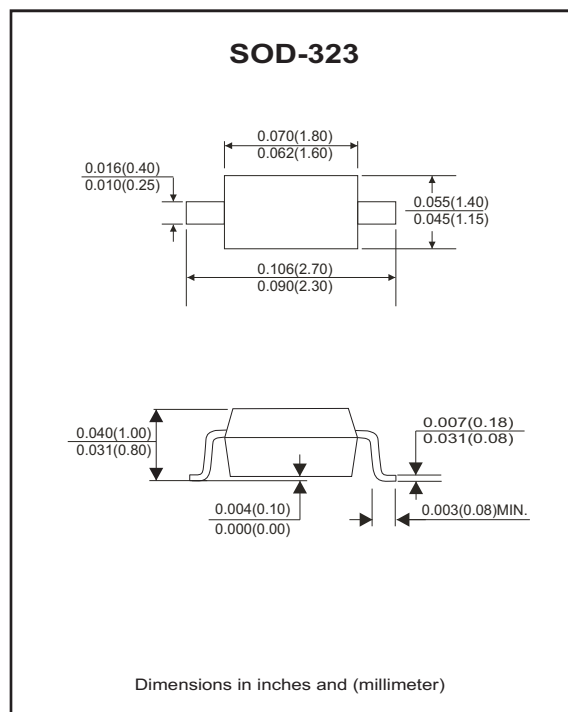


Features

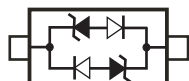
- IEC61000-4-2 Level 4 ESD Protection.
- IEC61000-4-4 Level 4 FET protection.
- IEC61000-4-5 (Lightning) rating. 12A(8/20 μ S)
- Protects one Bi-directional I/O line
- Working Voltage: 3V,3.3V,5V,8V,12V,15V,24V
- Low clamping voltage

Mechanical data

- Case: SOD-323 small outline plastic package.
- Molding Compound Flammability Rating: UL 94V-0.
- Terminals: Matte tin plated, solderable per MIL-STD-202, method 208.
- Mounting position: Any.
- Weight: 0.005 gram(approx.).
- Packing: 3,000 pieces per 7" reel



Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak pulse current (tp = 8/20 μ s waveform)	PPP	350	W
ESD per IEC 61000-4-2(Contact) ESD per IEC 61000-4-2(Air)	VESD	± 16 ± 22	kV
Lead Soldering Temperature	TL	260 (10 sec.)	$^{\circ}$ C
Junction temperature	TJ	-55 to +150	$^{\circ}$ C
Storage temperature	TSTG	-55 to +150	$^{\circ}$ C

Electrical Characteristics Per Line (at TA=25°C unless otherwise Specified)

Part No.	V _{RWN} (V)	V _(BR) (V)	I _T (mA)	V _C (V)	V _C (V)		I _R (uA) (Max)	C _J (pF) (Typ)
	Max	Min		@I _{PP} =1A	Max	I _{PP} (A)		
CPDV3V0SP-HF	3	4	1	5.15	13.9	8	20	0.4
CPDV3V3SP-HF	3.3	4	1	5.15	13.9		40	0.4
CPDV5V0SP-HF	5	6	1	9.80	18.3		5	0.4
CPDV8V0SP-HF	8	8.5	1	13.4	18.5		2	0.4
CPDV12V0SP-HF	12	13.3	1	19.0	28.6	6	1	0.4
CPDV15V0SP-HF	15	16.7	1	24.0	31.8	5	1	0.4
CPDV24V0SP-HF	24	26.7	1	43.0	56.0	3	1	0.4

RATING AND CHARACTERISTIC CURVES (CPDV3V0SP-HF Thru. CPDV24V0SP-HF)

Fig. 1 - Non-Repetitive Peak Pulse Power vs. Pulse Time

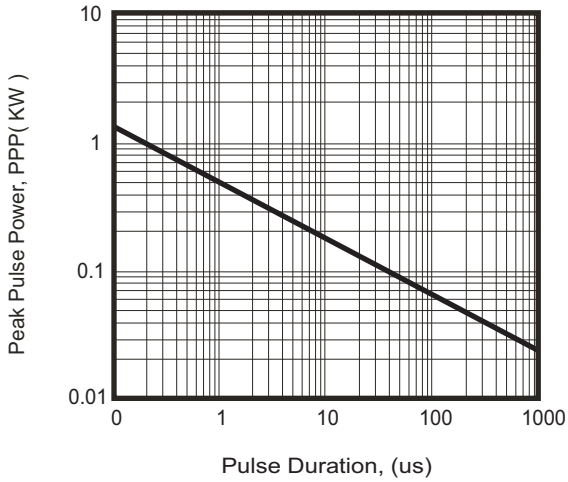


Fig. 2 - Clamping Voltage vs. Peak Pulse Current

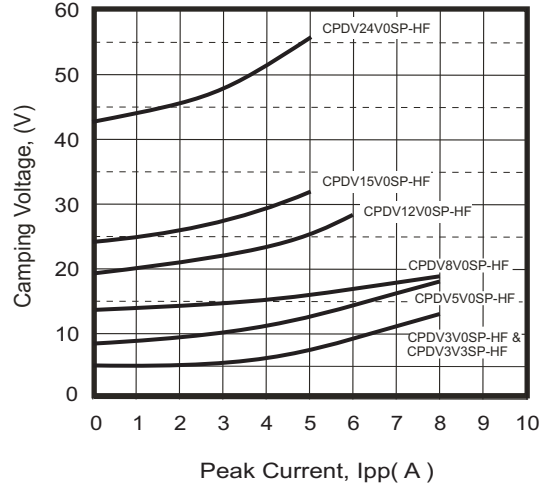


Fig. 3 - Admissible Power Dissipation Curve

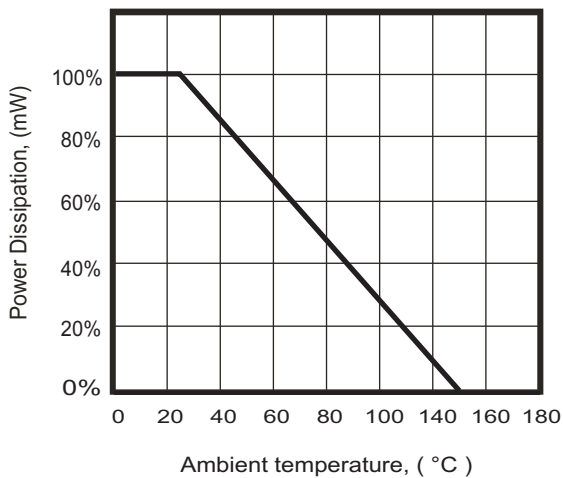
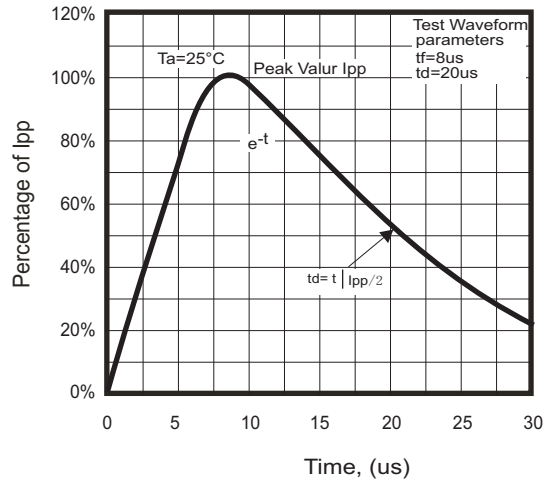
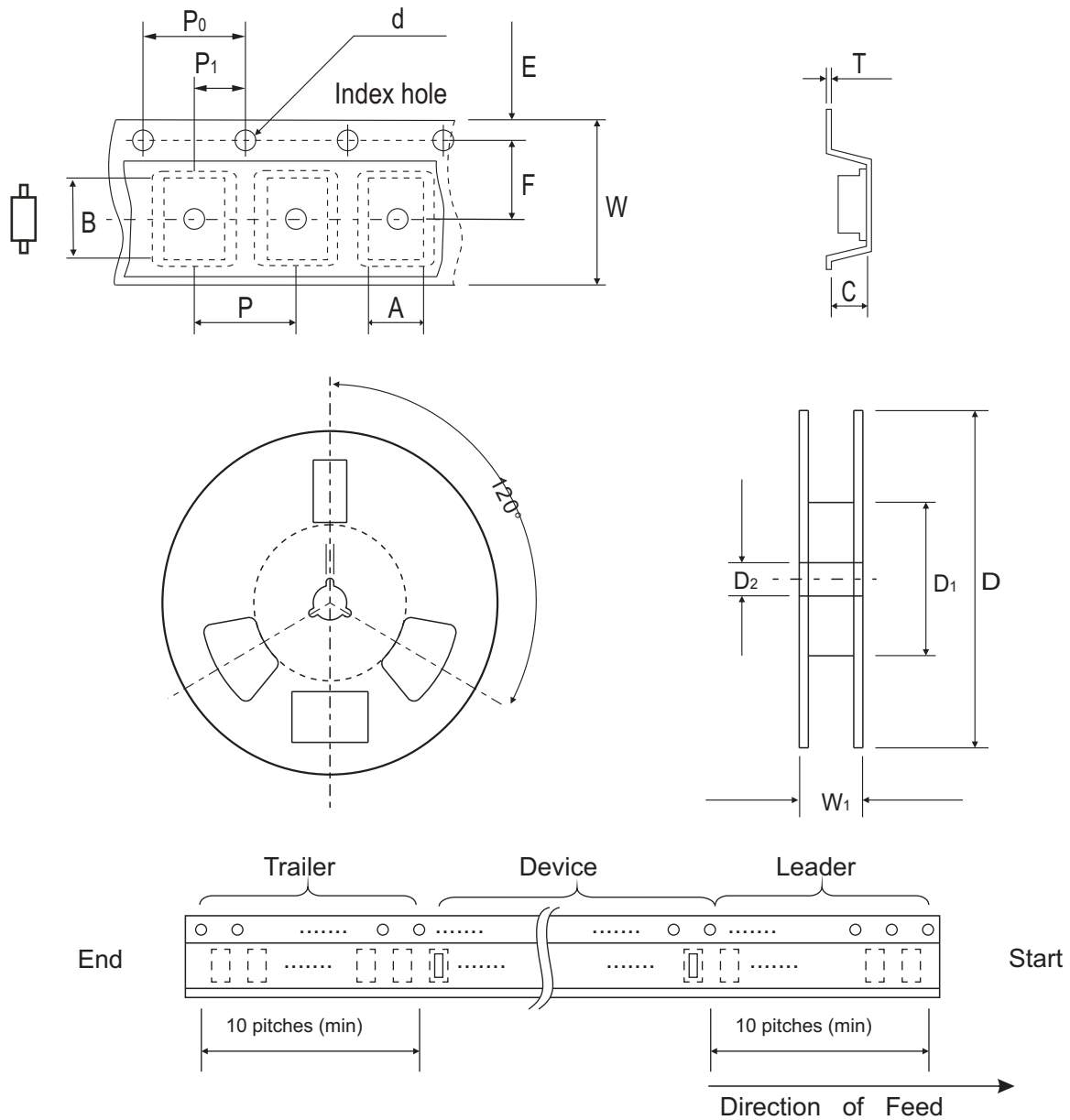


Fig. 4 - 8/20us Peak pulse current waveform acc. IEC 61000-4-5



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.49 ± 0.10	2.95 ± 0.10	1.1 ± 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 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 ± 0.10	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.

Marking Code

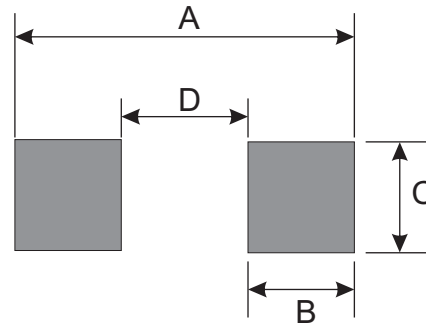
Part Number	Marking Code
CPDV3V0SP-HF	CC
CPDV3V3SP-HF	CC
CPDV5V0SP-HF	AC
CPDV8V0SP-HF	BC
CPDV12V0SP-HF	DC
CPDV15V0SP-HF	EC
CPDV24V0SP-HF	HC



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