CPDV24VA-HF

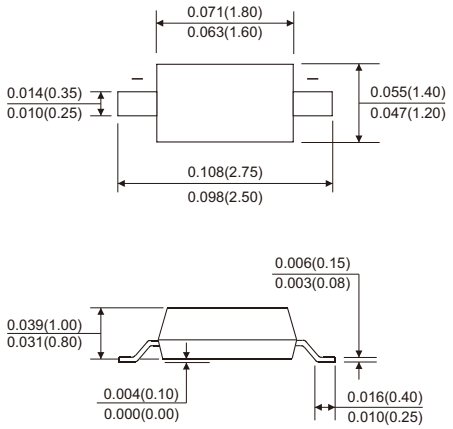
RoHS Device
Halogen Free



Features

- Bi-directional ESD protection of one line
- Low reverse clamping voltage.
- Low leakage current.
- Fast response time.
- JESD22-A114-B ESD rating of class 3B per human body model.
- IEC 61000-4-2 Level 4 ESD protection.

SOD-323



Dimensions in inches and (millimeter)

Mechanical data

- Case: SOD-323 package, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Mounting position: Any.

Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD (Note 1)	±30	kV
JESD22-A114-B ESD	per human body model		±16	
ESD voltage	machine model		±0.4	
Peak pulse power (Note 2)		P_{PP}	450	W
Peak pulse current (Note 2)		I_{PP}	8.5	A
Lead solder temperature - maximum (10 second duration)		T_L	260	°C
Operation junction and storage temperature range		T_J, T_{STG}	-55 to +150	°C

Notes: 1. Device stressed with ten non-repetitive ESD pulses.
2. Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC 61000-4-5.

Electrical Characteristics (at T_A=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand off voltage (Note 1)		V_{RWM}			24	V
Reverse leakage current	V_{RWM} = 24V	I_R			1	μA
Breakdown voltage	I_T = 1mA	V_{BR}	26		32	V
Clamping voltage (Note 2)	I_{PP} = 1A	V_C		37		V
	I_{PP} = 8.5A	V_C		48	53	V
Junction capacitance	V_R = 0V, f = 1MHz	C_J		35	40	pF

Notes: 1. Other voltages available upon request.
2. Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC 61000-4-5.

Typical Rating and Characteristic Curves (CPDV24VA-HF)

Fig.1 - Reverse Characteristics

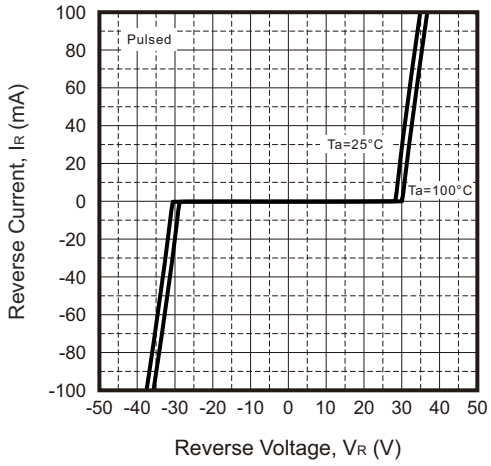


Fig.2 - Capacitance Characteristics

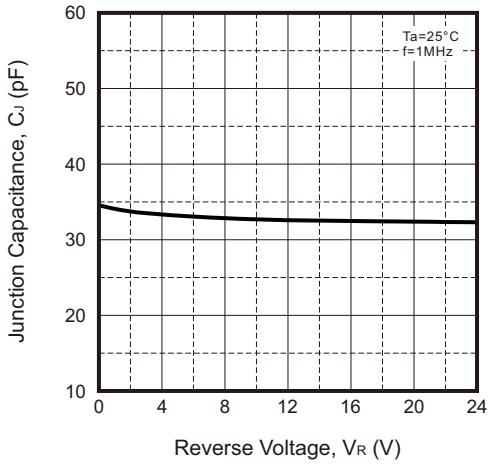
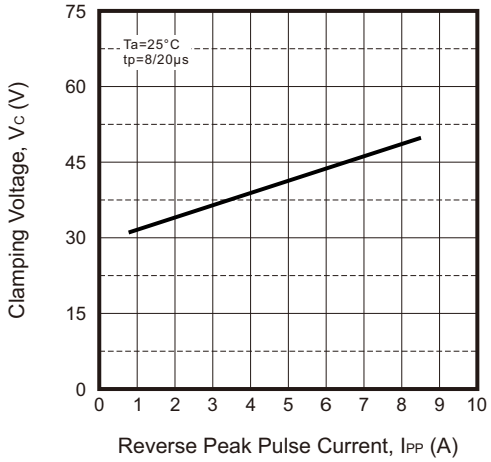
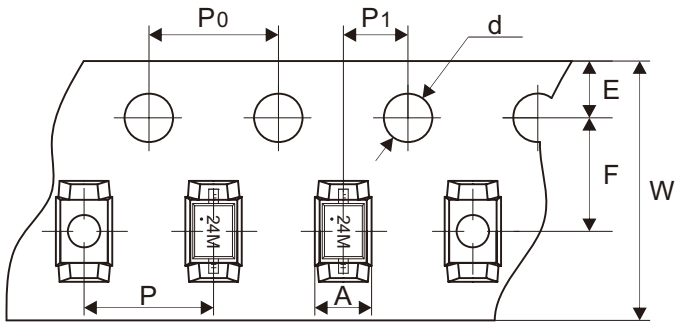
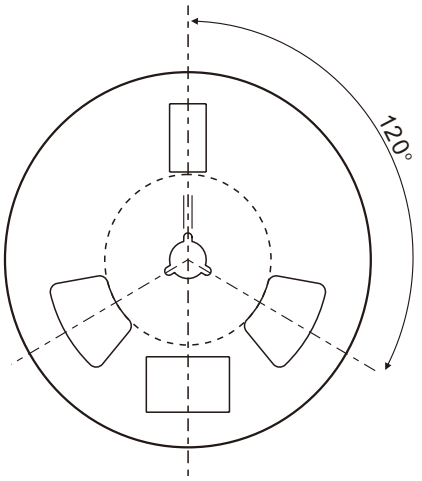


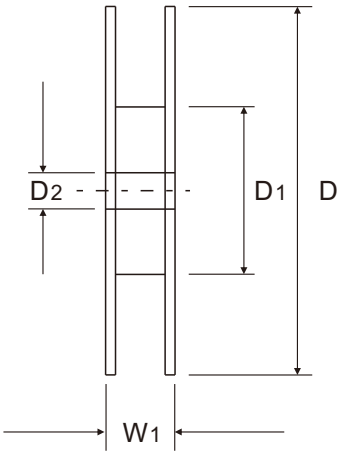
Fig.3 - V_C — I_{PP}

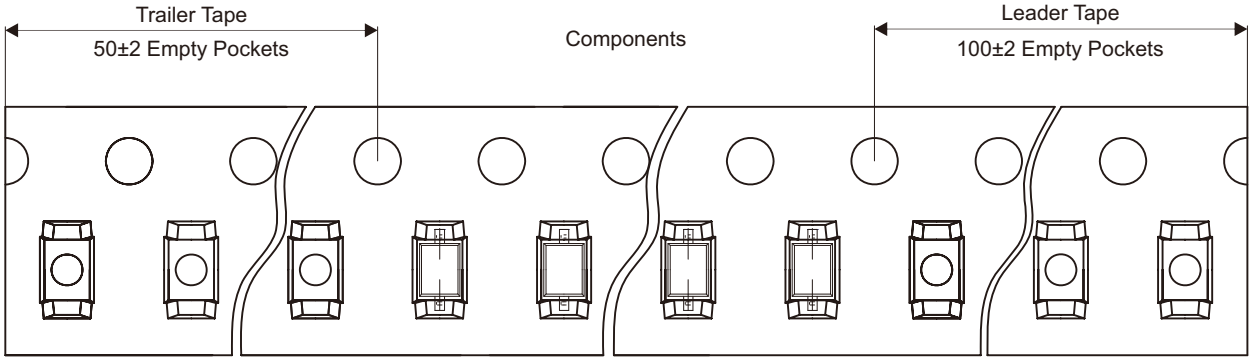


Reel Taping Specification









	SYMBOL	A	B	C	d	D	D1	D2
SOD-323	(mm)	1.46 ± 0.05	2.90 ± 0.05	1.25 ± 0.05	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.057 ± 0.002	0.114 ± 0.002	0.049 ± 0.002	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

	SYMBOL	E	F	P	P0	P1	W	W1
SOD-323	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 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 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 − 0.004	0.484 ± 0.039

Marking Code

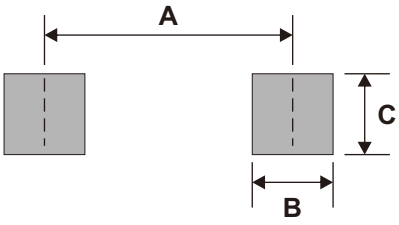
Part Number	Marking Code
CPDV24VA-HF	24M



Solid dot = Control code

Suggested P.C.B. PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.15	0.085
B	0.70	0.028
C	0.70	0.028



Standard Packaging

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