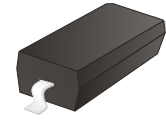


CPDW3V3-HF

RoHS Device
Halogen Free



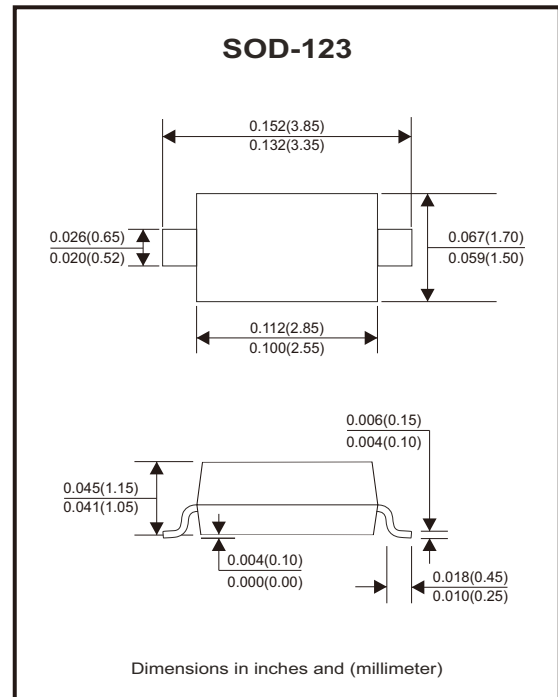
Features

- IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ (air/contact).
- IEC 61000-4-4 (EFT) 40A (5/50ns).
- Low clamping voltage.
- Working voltages: 3.3V.
- Low leakage current.
- Low capacitance.

Mechanical data

- Case: SOD-123 package.
- Flammability rating: UL 94V-0.
- High temperature soldering guaranteed:
260°C/10s.

Circuit Diagram



Maximum Rating (at $T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
ESD capability	IEC 61000-4-2 (air) IEC 61000-4-2 (contact)	ESD	± 30	kV
Peak pulse power	$T_P = 8/20\mu\text{s}$	P_{PP}	504	W
Peak pulse current	$T_P = 8/20\mu\text{s}$	I_{PP}	28	A
Operating junction temperature range		T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics (at $T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse working voltage		V_{RWM}			3.3	V
Reverse breakdown voltage	$I_T = 1\text{mA}$	V_{BR}	4.0		6.0	V
Reverse leakage current	$V_{RWM} = 3.3\text{V}$	I_R			1.0	μA
Clamping voltage	$I_{PP} = 1\text{A}$, $T_P = 8/20\mu\text{s}$	V_C			6.5	V
	$I_{PP} = 28\text{A}$, $T_P = 8/20\mu\text{s}$			13	18	
Junction capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_J		35	45	pF

Typical Rating and Characteristic Curves (CPDW3V3-HF)

Fig.1 - 8/20μs Waveform per IEC 61000-4-5

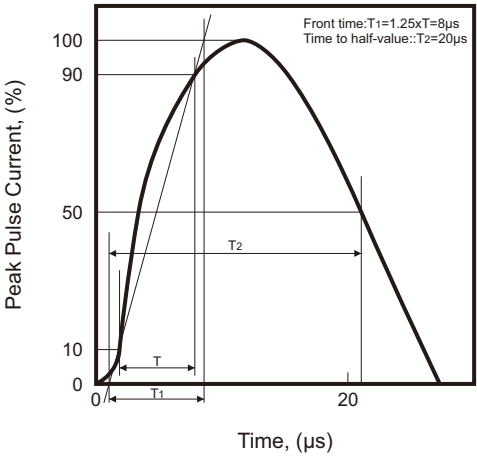


Fig.2 - Contact Discharge Current Waveform per IEC 61000-4-2

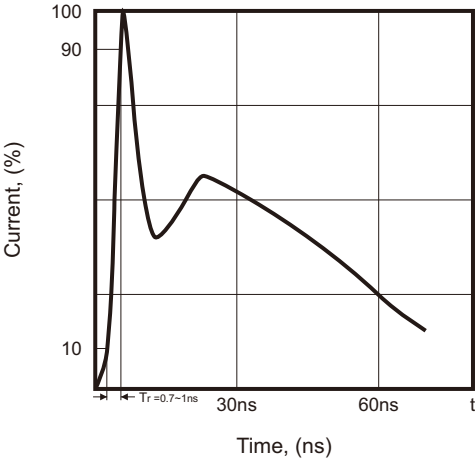


Fig.3 - Voltage vs Capacitance

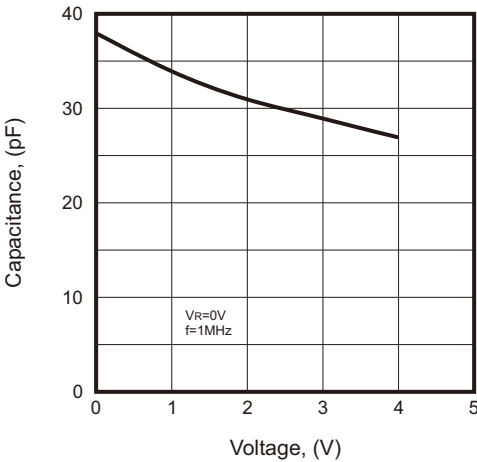
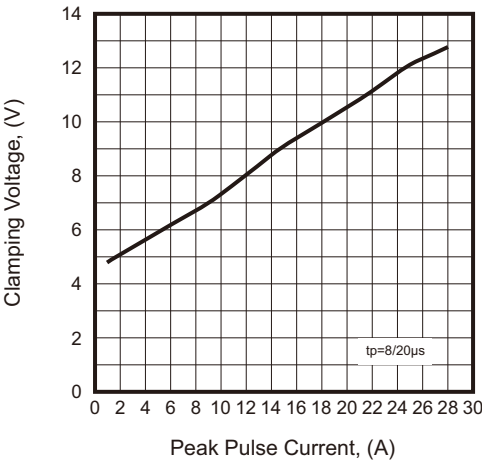
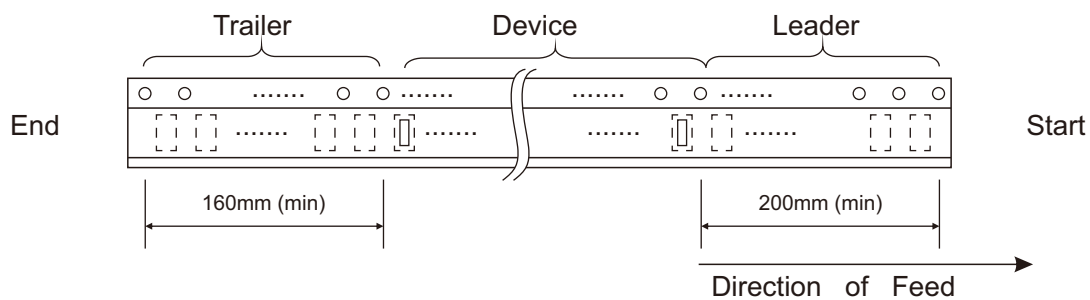
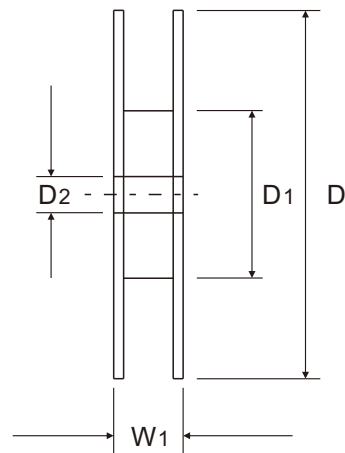
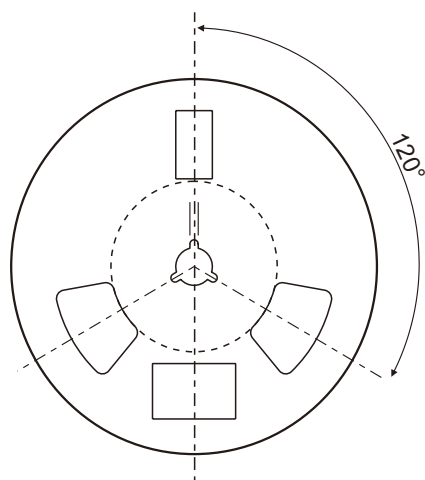
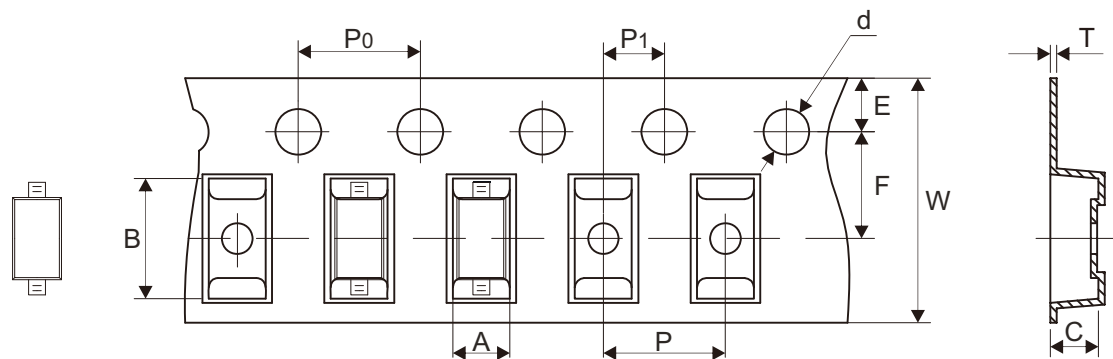


Fig.4 - Clamping Voltage vs Peak Pulse Current



Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.10	3.94 ± 0.10	1.57 ± 0.10	1.55 ± 0.05	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 ± 0.002	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-123	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.02	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 ± 0.002	0.008 ± 0.0001	0.315 + 0.012 - 0.004	0.484 ± 0.039

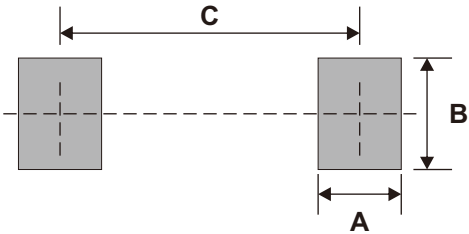
Marking Code

Part Number	Marking Code
CPDW3V3-HF	3CM



Suggested P.C.B. PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	0.80	0.031
B	1.00	0.039
C	3.24	0.128



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123	3,000	7