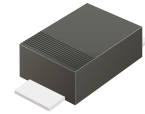


CPDW5V0MUHT-HF

RoHS Device
Halogen Free



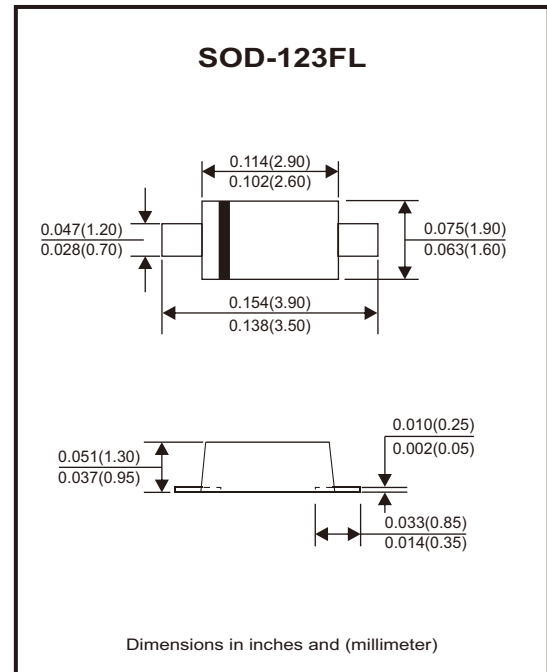
Features

- Uni-directional ESD protection.
- Low leakage current.
- Low clamping voltage.
- IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ (air/contact)
- IEC 61000-4-4 (EFT) 80A (5/50ns)
- IEC 61000-4-5 (Lightning) 60A (8/20 μs)

Mechanical data

- Case: SOD-123FL package, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu\text{s}$	P_{PP}	840	W
Peak pulse current	$T_P = 8/20\mu\text{s}$	I_{PP}	60	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	± 30	kV
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
Working peak reverse voltage		V_{RWM}			5	V
Forward voltage	$I_F = 15\text{mA}$	V_F			1.2	V
Breakdown voltage	$I_T = 1\text{mA}$	V_{BR}	6			V
Reverse leakage current	$V_{RWM} = 5\text{V}$	I_R			1	μA
Clamping voltage	$I_{PP} = 5\text{A}, T_P = 8/20\mu\text{s}$	V_C			10.5	V
	$I_{PP} = 30\text{A}, T_P = 8/20\mu\text{s}$	V_C			11.5	
	$I_{PP} = 60\text{A}, T_P = 8/20\mu\text{s}$	V_C			14.0	
Clamping voltage	$TLP = 16\text{A}, T_P = 100\text{ns}$	V_C		11		V
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	C_J		978		pF

Typical Rating and Characteristic Curves (CPDW5V0MUHT-HF)

Fig.1 - 8/20μs Peak Pulse Current
Waveform Acc. IEC 61000-4-5

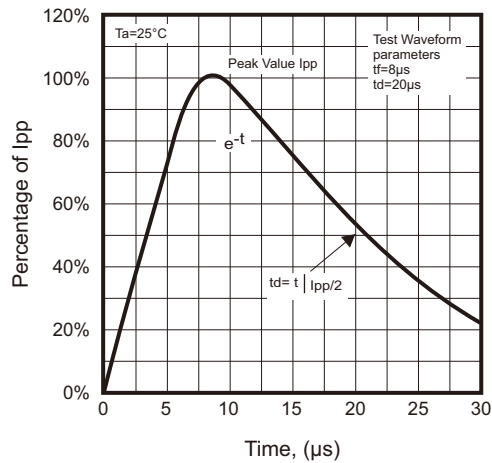


Fig.2 - Power Rating Derating Curve

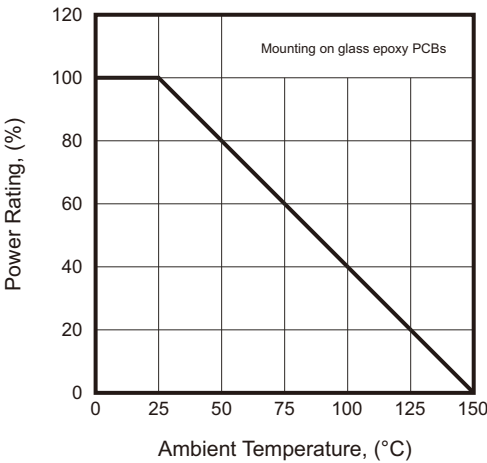


Fig.3 - Typical Clamping Voltage vs.
Peak Pulse Current

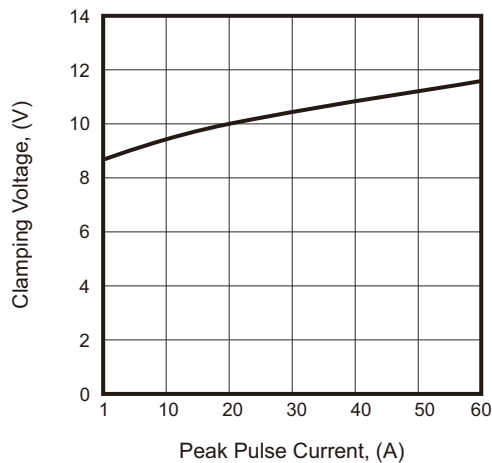


Fig.4 - Reverse Characteristics

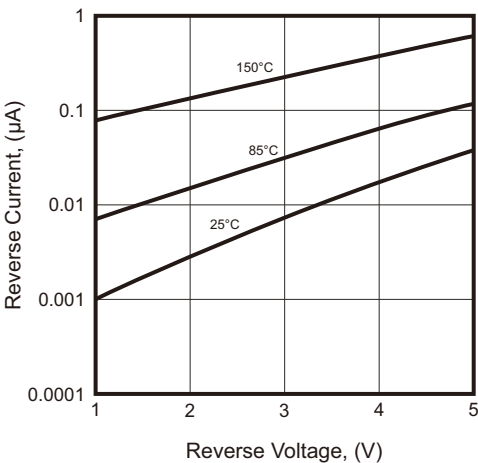


Fig.5 - TLP-Positive Pulse

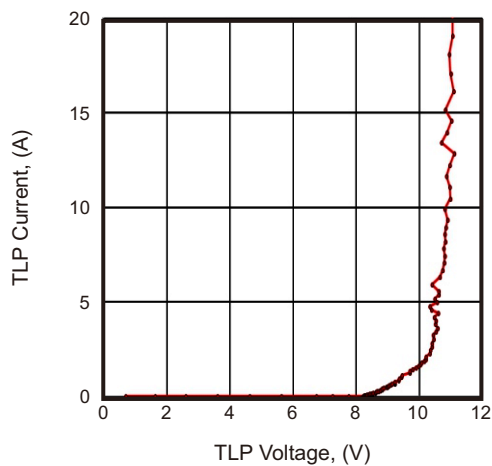
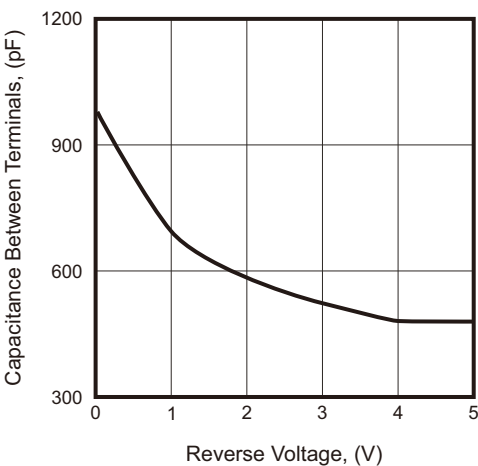
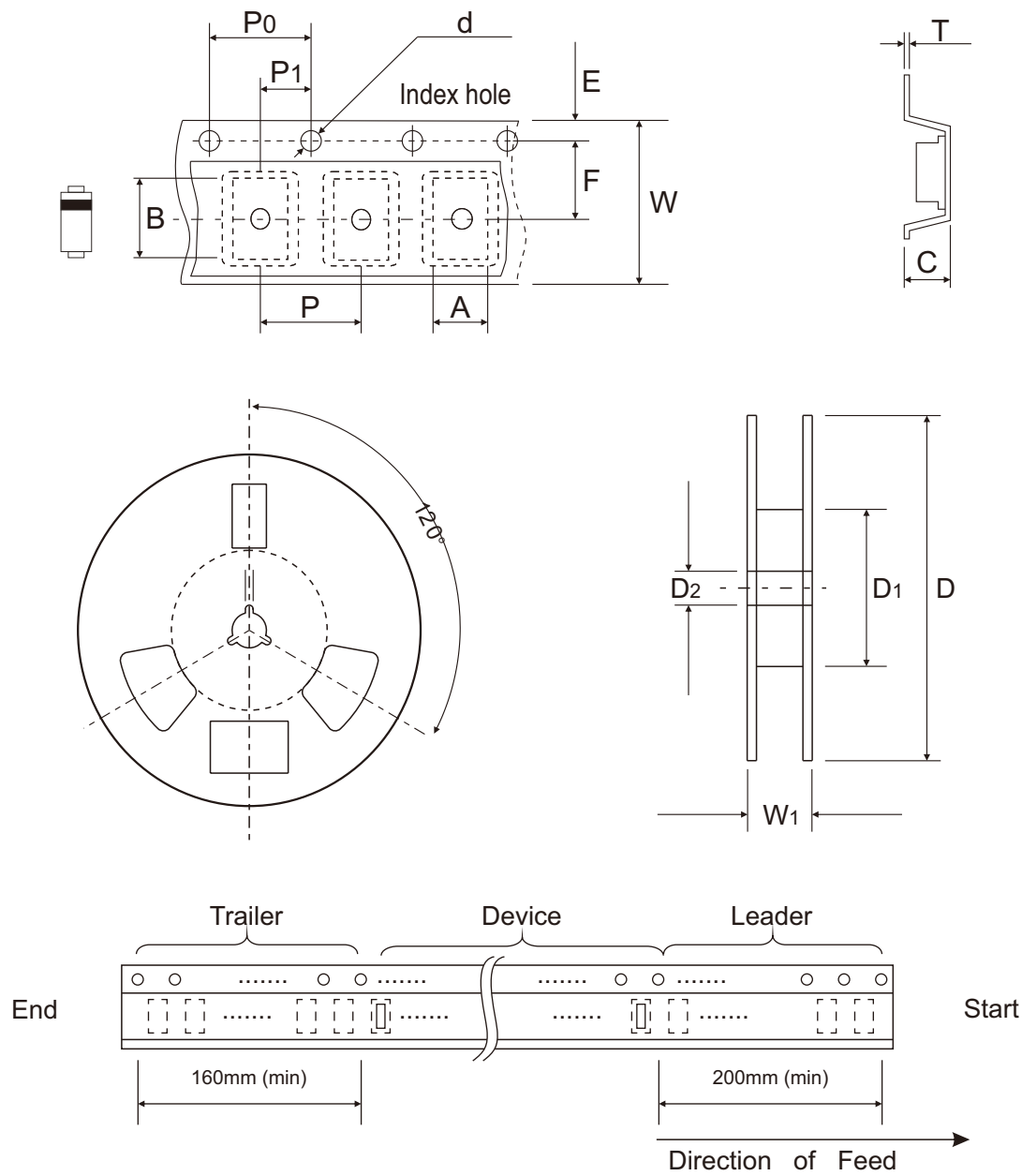


Fig.6 - Typical Capacitance Between
Terminals Characteristics



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D1	D2
SOD-123FL	(mm)	See Note 1			1.55 ± 0.05	178.00	50.00 Min	13.00
	(inch)				0.061 ± 0.002	7.008	1.969 Min	0.512

	SYMBOL	E	F	P	P0	P1	T	W	W1
SOD-123FL	(mm)	1.75 ± 0.05	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.28 Max	8.00 ± 0.10	11.40 Max
	(inch)	0.069 ± 0.002	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.011 Max	0.315 ± 0.004	0.449 Max

Notes: 1. A, B, and C the clearance between the component and the cavity must be within 0.5mm max.
for 8mm tape and 12mm tape, 1.0mm max. for 16mm tape and 24mm tape.

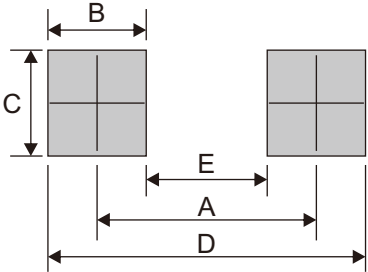
Marking Code

Part Number	Marking Code
CPDW5V0MUHT-HF	FM



Suggested P.C.B. PAD Layout

SIZE	SOD-123FL	
	(mm)	(inch)
A	2.90	0.114
B	1.30	0.051
C	1.40	0.055
D	4.20	0.165
E	1.60	0.063



Standard Packaging

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