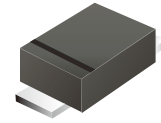


CPDTS3V3UHT-HF

RoHS Device

Halogen Free



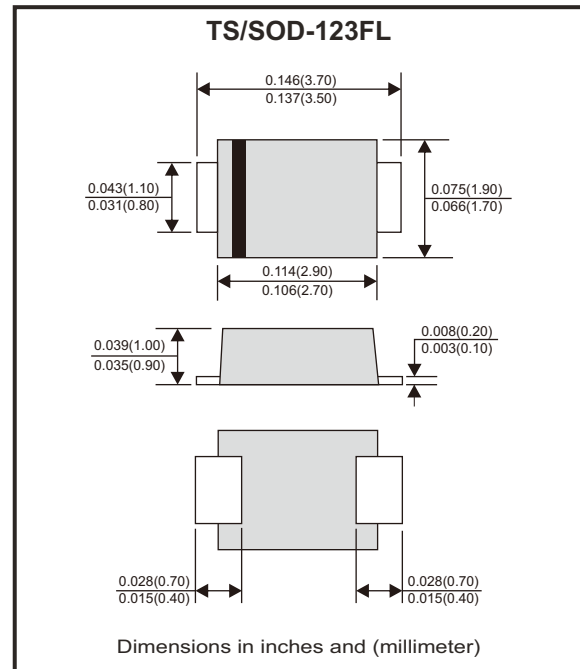
Features

- Uni-directional ESD protection.
- Surface mount package.
- High component density.

Mechanical data

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

Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu s$	P_{PP}	2800	W
Peak pulse current	$T_P = 8/20\mu s$	I_{PP}	200	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	°C
Storage temperature range		T_{STG}	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Working peak reverse voltage		V_{RWM}			3.3	V
Breakdown voltage	$I_R = 10mA$	V_{BR}	3.3		4.4	V
	$I_R = 40mA$	V_{BR}	3.3		4.4	V
Reverse leakage current	$V_{RWM} = 3.3V$	I_R			600	nA
Clamping voltage	$I_{PP} = 1A, T_P = 8/20\mu s$	V_C		3	5	V
	$I_{PP} = 200A, T_P = 8/20\mu s$	V_C		12	14	V
Junction capacitance	$V_R = 0V, f = 1MHz$	C_J		243		pF

Typical Rating and Characteristic Curves (CPDTS3V3UHT-HF)

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

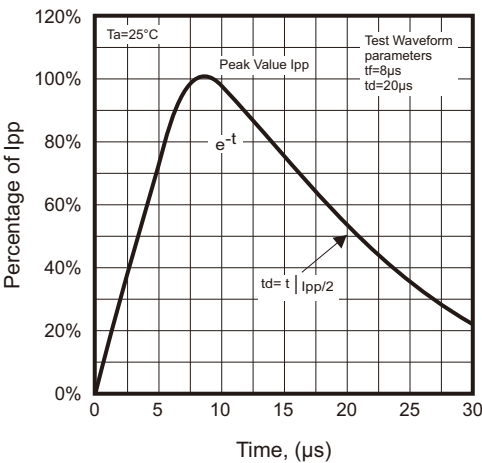


Fig.2 - Power Rating Derating Curve

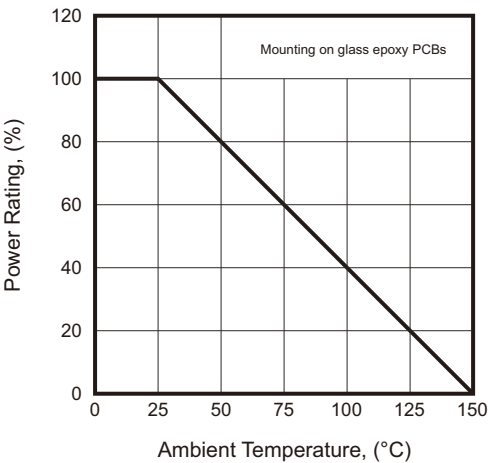


Fig.3 - Typical Clamping Voltage vs.
Peak Pulse Current

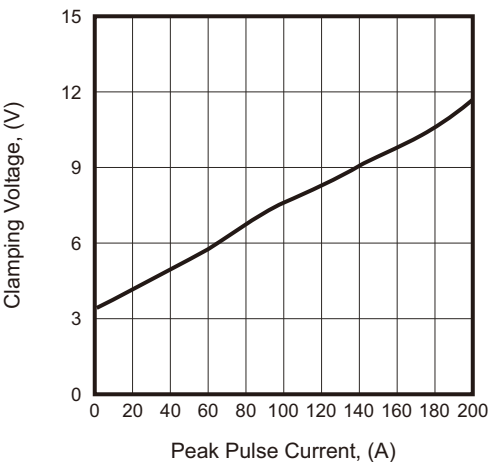
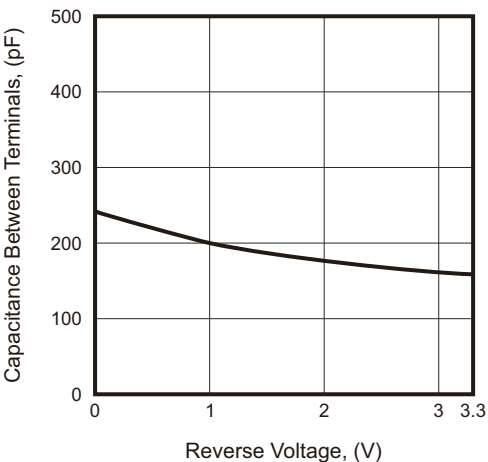
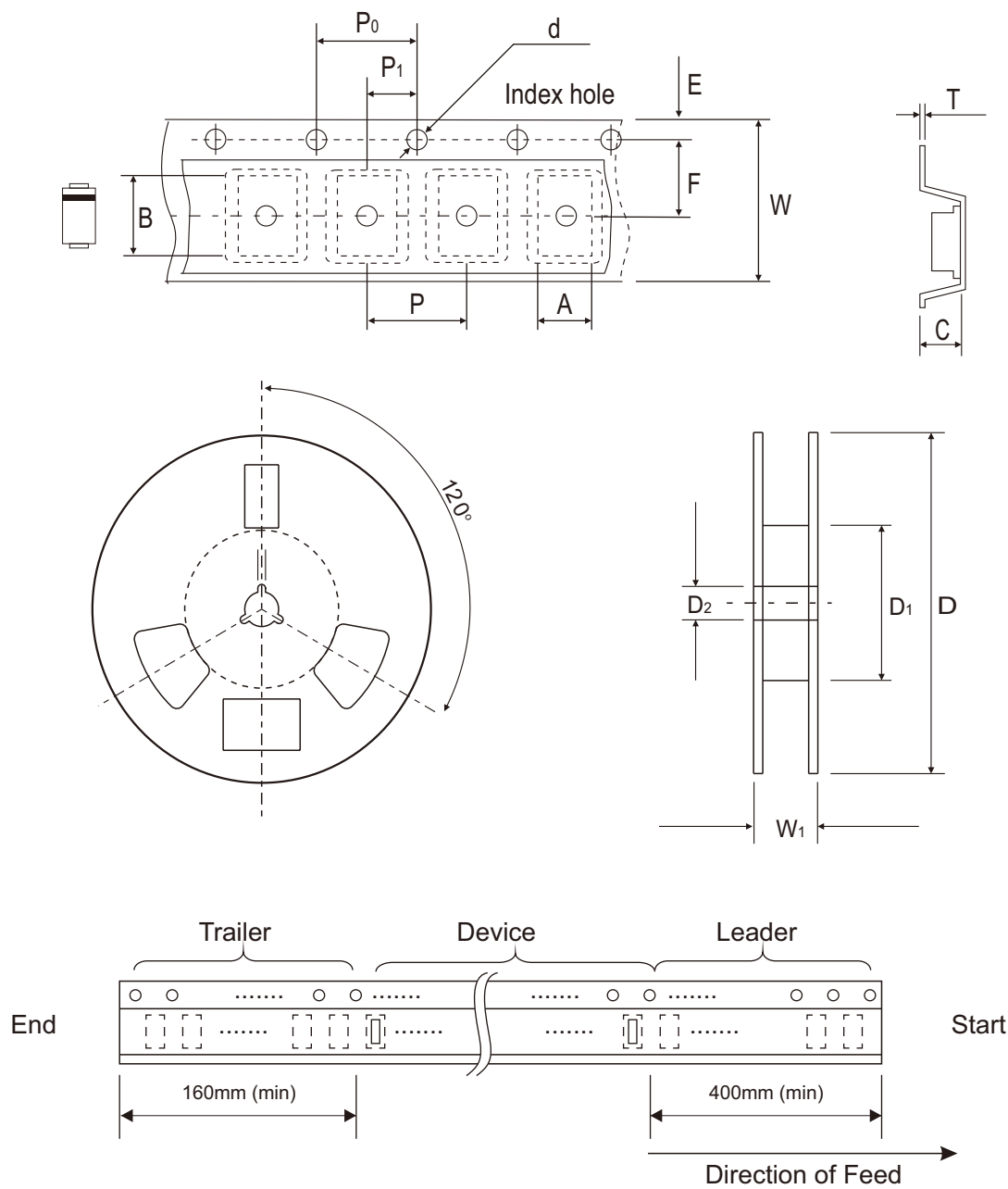


Fig.4 - Typical Capacitance Between
Terminals Characteristics



Reel Taping Specification



TS/SOD-123FL	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.05 ± 0.10	3.85 ± 0.10	1.25 ± 0.10	1.55 ± 0.05	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.081 ± 0.004	0.152 ± 0.004	0.049 ± 0.004	0.061 ± 0.002	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

TS/SOD-123FL	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	0.20 ± 0.05	8.00 ± 0.30	12.00 + 0.50 - 0
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.002	0.315 ± 0.012	0.472 + 0.020 - 0

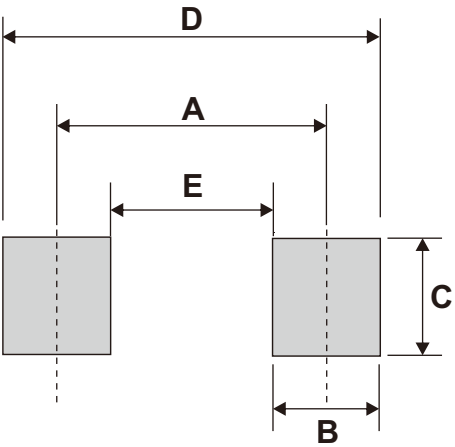
Marking Code

Part Number	Marking Code
CPDTS3V3UHT-HF	E3T



Suggested P.C.B. PAD Layout

SIZE	TS/SOD-123F	
	(mm)	(inch)
A	3.10	0.122
B	1.15	0.045
C	1.25	0.048
D	4.25	0.167
E	1.95	0.077



Standard Packaging

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