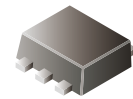


CPDH5-5V0U-HF

RoHS Device
Halogen Free



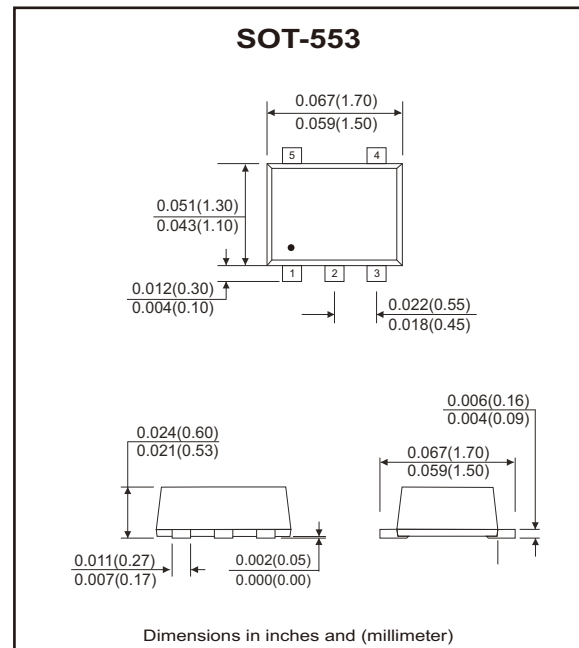
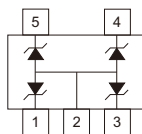
Features

- IEC 61000-4-2 Level 4 ESD protection.
- Surface mount package.
- High component density.

Mechanical data

- Case: SOT-553, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- 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}	80	W
Peak pulse current	$T_P = 8/20\mu\text{s}$	I_{PP}	8	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	± 15 ± 8	kV
Operating temperature range		T_J	-55 to +125	$^\circ\text{C}$
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
Breakdown voltage	$I_T = 1\text{mA}$	V_{BR}	6.1			V
Reverse leakage current	$V_R = 3\text{V}$	I_R		0.1	1.0	μA
Forward voltage	$I_F = 10\text{mA}$	V_F			1.2	V
Clamping voltage	$I_{PP} = 1\text{A}$, $T_P = 8/20\mu\text{s}$	V_C			8	V
	$I_{PP} = 8\text{A}$, $T_P = 8/20\mu\text{s}$	V_C			10	V
Junction capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_J		60	80	pF

Typical Rating and Characteristic Curves (CPDH5-5V0U-HF)

Fig.1 - 8/20 μ s Peak Pulse Current Waveform acc. IEC 61000-4-5

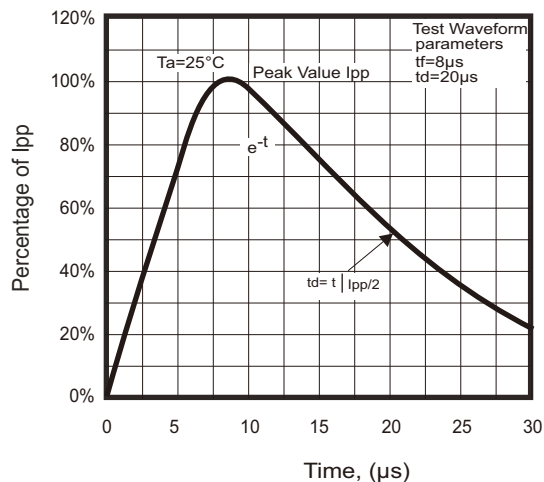


Fig.2 - Power Rating Derating Curve

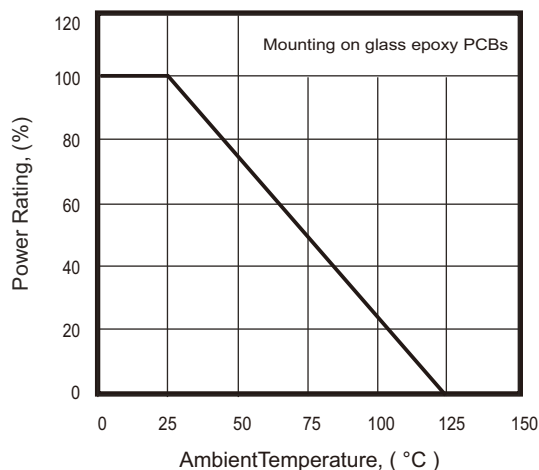


Fig.3 - Clamping Voltage vs. Peak Pulse Current

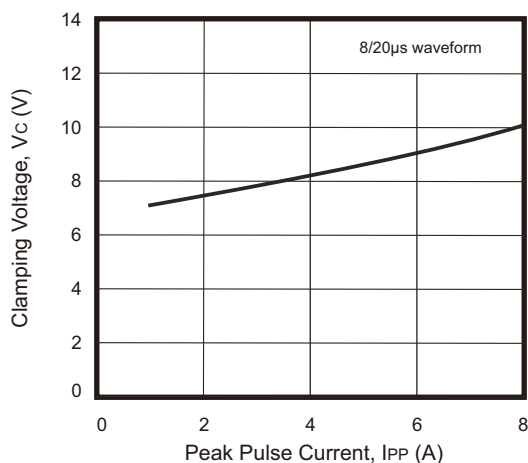
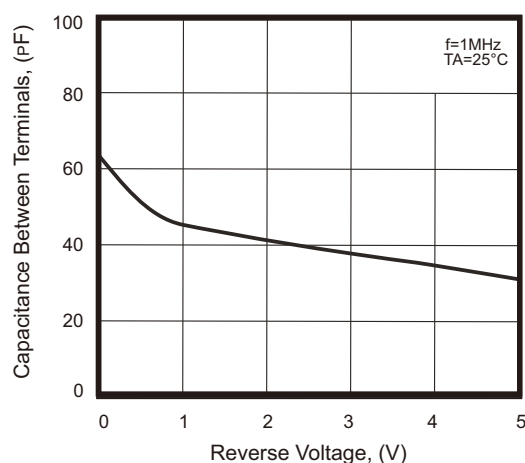
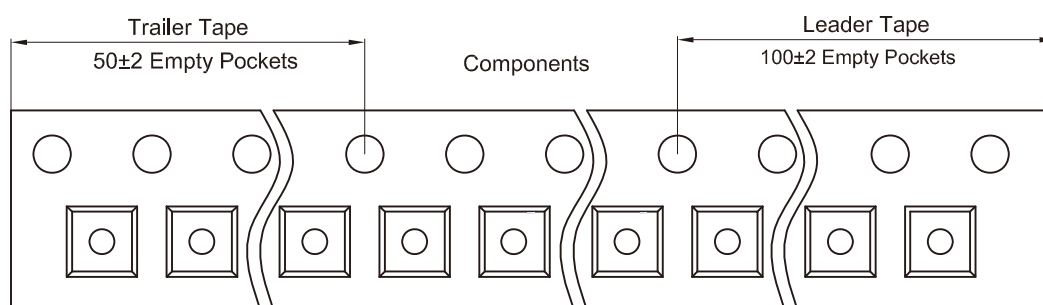
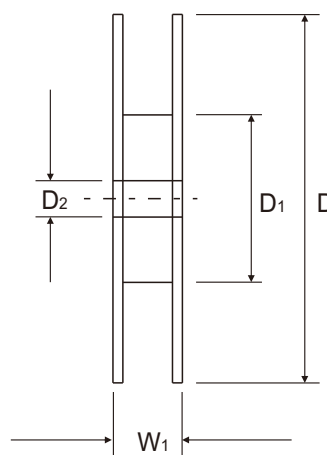
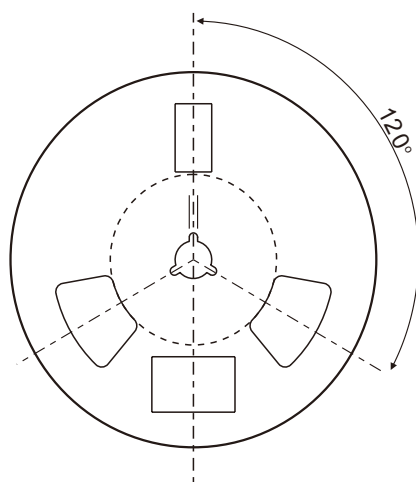
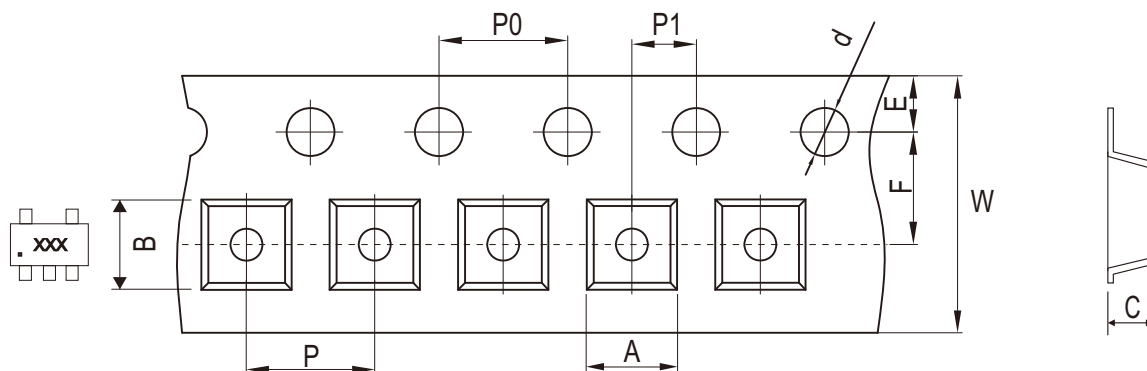


Fig.4 - Capacitance Between Terminals Characteristics



Reel Taping Specification

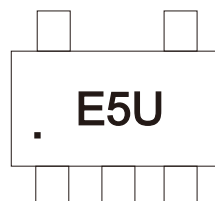


SOT-553	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.78 ± 0.10	1.78 ± 0.10	0.69 ± 0.10	1.50 ± 0.10	178 ± 2.00	54.4 ± 1.00	13.0 ± 1.00
	(inch)	0.070 ± 0.004	0.070 ± 0.004	0.027 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.040	0.512 ± 0.040

SOT-553	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 ± 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.004	0.567 ± 0.040

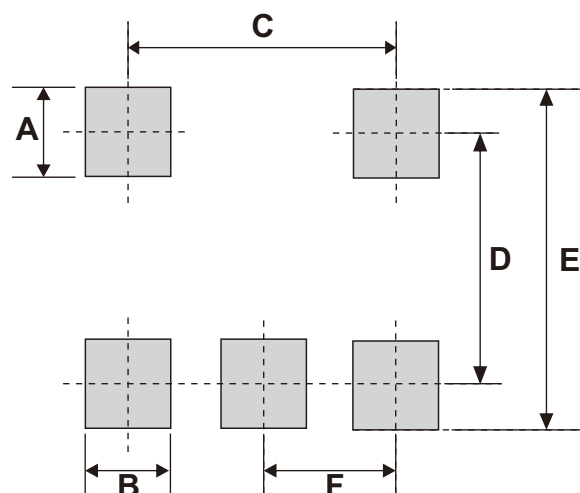
Marking Code

Part Number	Marking Code
CPDH5-5V0U-HF	E5U



Suggested P.C.B. PAD Layout

SIZE	SOT-553	
	(mm)	(inch)
A	0.30	0.012
B	0.30	0.012
C	1.00	0.039
D	1.40	0.055
E	1.70	0.067
F	0.50	0.020



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-553	3,000	7