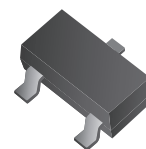


CPDH3-5V0U-HF

RoHS Device
Halogen Free



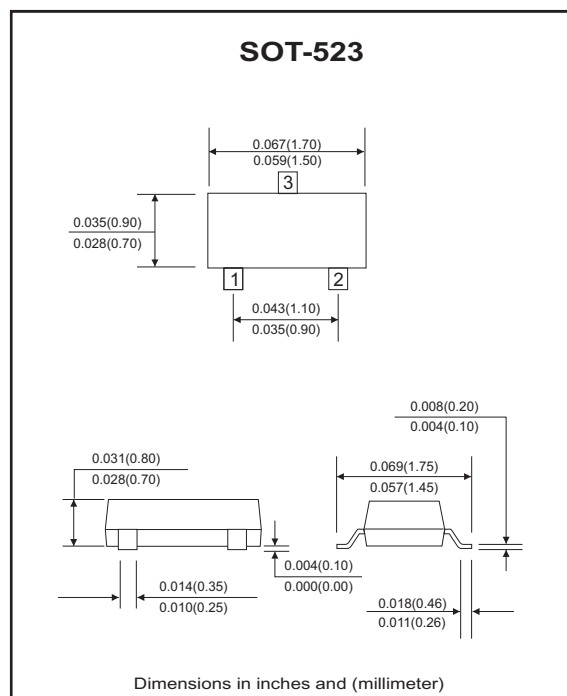
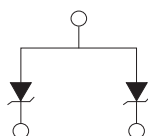
Features

- IEC61000-4-2 Level 4 ESD protection.
- Surface mount package.
- High component density.

Mechanical data

- Case: SOT-523 Standard package, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Marking code: E5U
- Mounting position: Any.
- Weight: 0.0028 gram (approx.).

Circuit diagram



Maximum Rating and Electrical Characteristics

(at TA=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Diode breakdown voltage	V_{BD}	$I_R = 1\text{mA}$	6.1			V
Leakage current	I_L	$V_R = 3\text{V}$		0.1	1.0	μA
Forward voltage	V_F	$I_F = 10\text{mA}$			1.2	V
Junction capacitance	C_T	$V_R = 0\text{V}, f = 1\text{MHz}$		60	80	pF
ESD capability	ESD	IEC 61000-4-2(air) IEC 61000-4-2(contact)			15 8	kV
Clamping voltage	V_C	$I_{PP} = 1\text{A}, T_P = 8/20\mu\text{s}$ $I_{PP} = 8\text{A}, T_P = 8/20\mu\text{s}$			8 10	V
Peak pulse power	P_{PP}				80	W
Operation temperature	T_J				125	°C
Storage temperature	T_{STG}		-55		150	°C

RATING AND CHARACTERISTIC CURVES (CPDH3-5V0U-HF)

Fig. 1 - 8/20us Peak pulse current waveform acc. IEC 61000-4-5

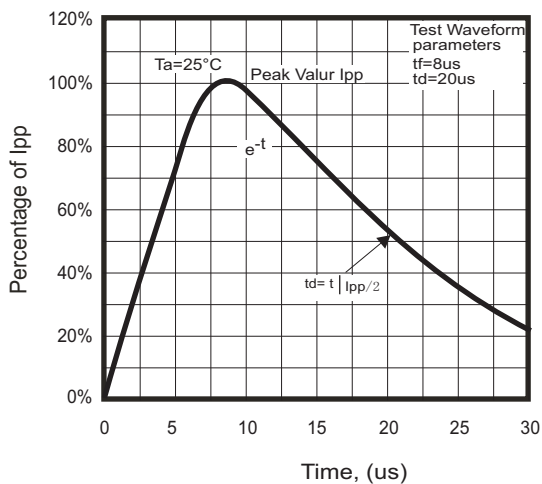


Fig.2 - Power rating derating curve

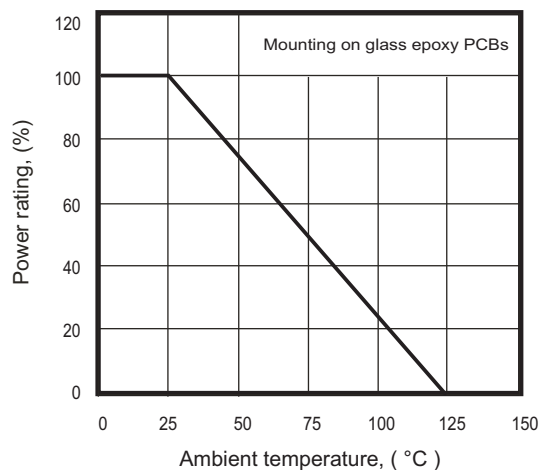


Fig.3 - Clamping voltage vs. peak pulse current

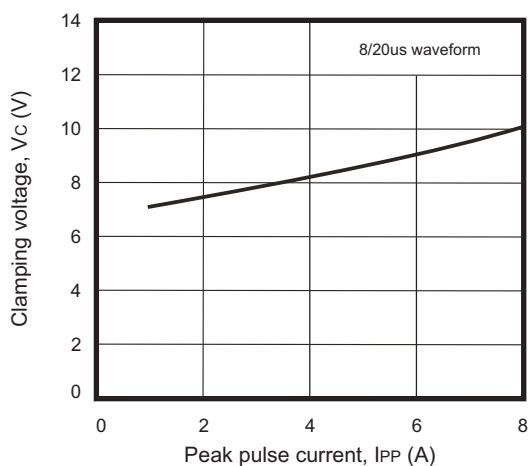
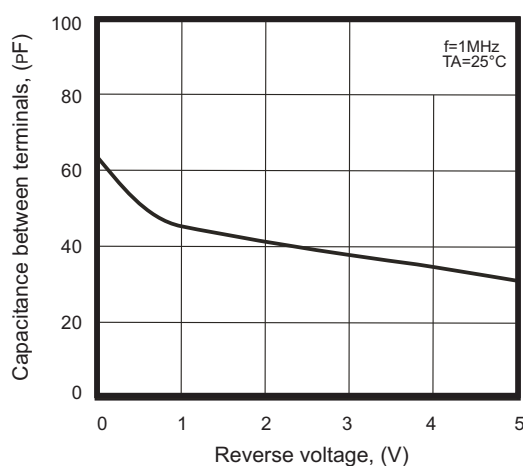
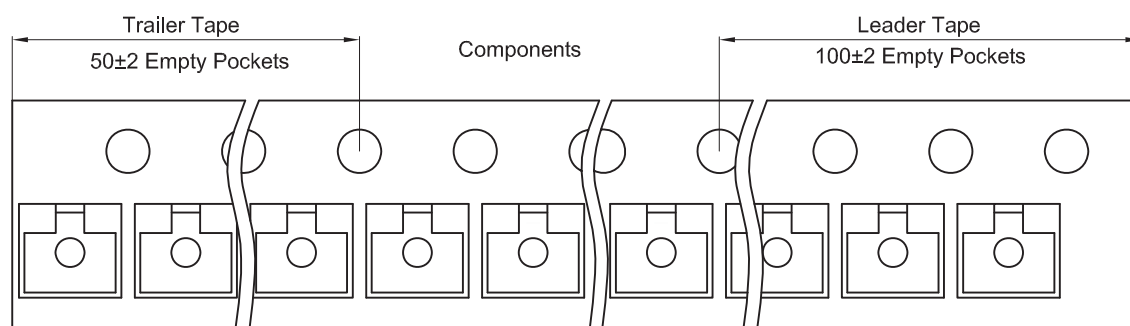
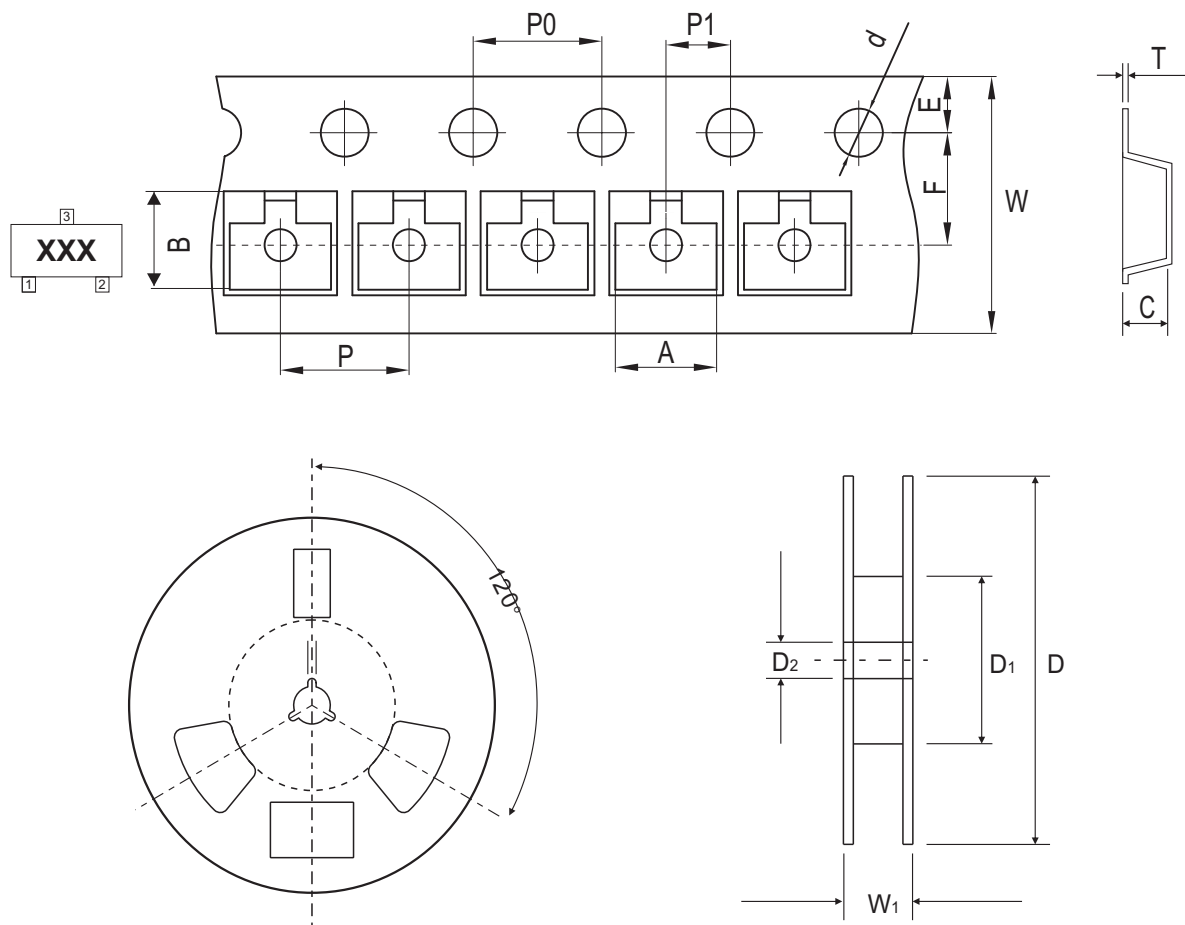


Fig.4 - Capacitance between terminals characteristics



Reel Taping Specification

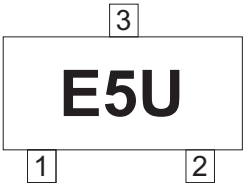


SOT-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.05	1.85 ± 0.05	0.88 ± 0.05	1.50 ± 0.10	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.073 ± 0.002	0.073 ± 0.002	0.035 ± 0.002	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOT-523	SYMBOL	E	F	P	P0	P1	W	W1
	(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

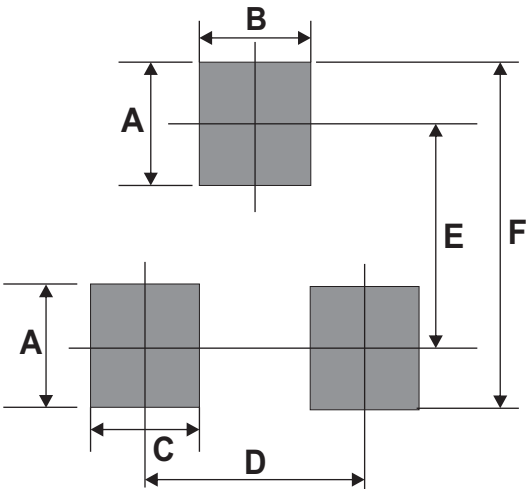
Marking Code

Part Number	Marking Code
CPDH3-5V0U-HF	E5U



Suggested PAD Layout

SIZE	SOT-523	
	(mm)	(inch)
A	0.60	0.024
B	0.50	0.020
C	0.40	0.016
D	1.00	0.039
E	1.24	0.049
F	1.84	0.072



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-523	3,000	7