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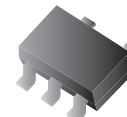
## SMD ESD Protection Diode



# CPDT5-5V0C-HF

## RoHS Device

## Halogen Free

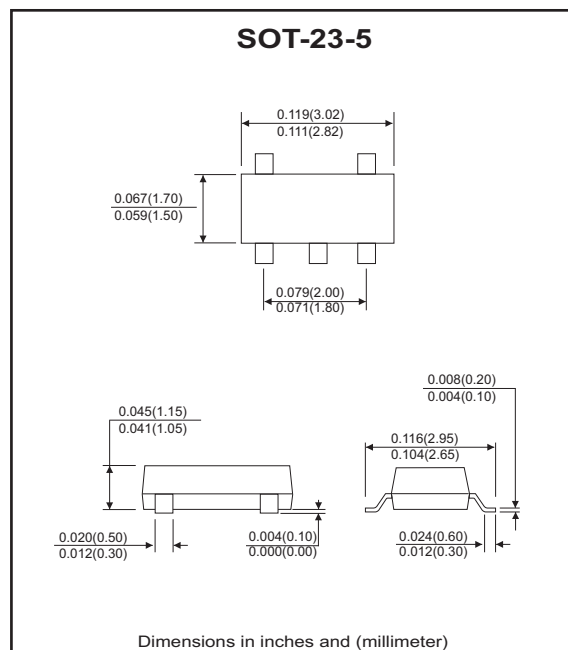


### Features

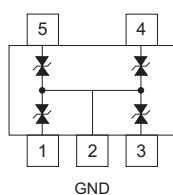
- Bi-directional ESD protection of 4 lines.
- IEC61000-4-2 Level 4 ESD protection.
- Operating voltage: 5V.

### Mechanical data

- Case: SOT-23-5 Standard package, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Marking code: E05
- Mounting position: Any.
- Weight: 0.0153 gram(approx.).



### Circuit diagram



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Diode breakdown voltage	$I_R = 1\text{mA}$	$V_{BD}$	6.1	7.0		V
Leakage current	$V_R = 5\text{V}$	$I_L$		0.1	2.0	$\mu\text{A}$
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	$C_T$		25	30	pF
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD			16 8	kV
Operation temperature		$T_j$			125	$^{\circ}\text{C}$
Storage temperature		$T_{STG}$	-55		150	$^{\circ}\text{C}$

# SMD ESD Protection Diode



## RATING AND CHARACTERISTIC CURVES (CPDT5-5V0C-HF)

Fig. 1 - Reverse characteristics

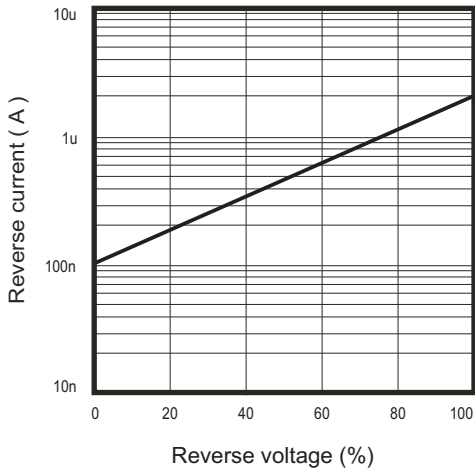


Fig. 2 - Capacitance between terminals characteristics

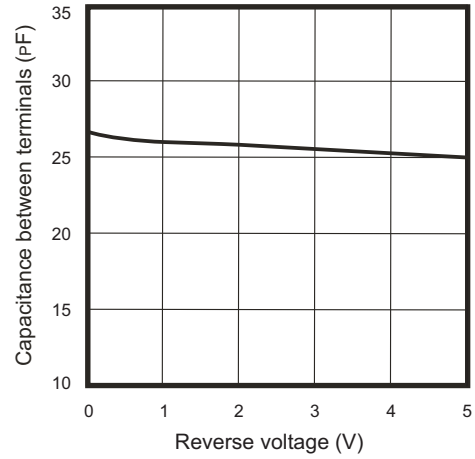
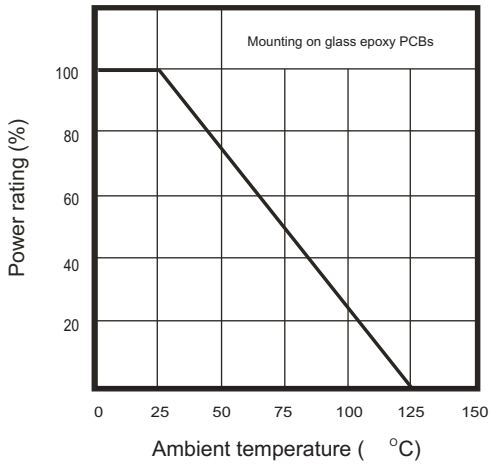


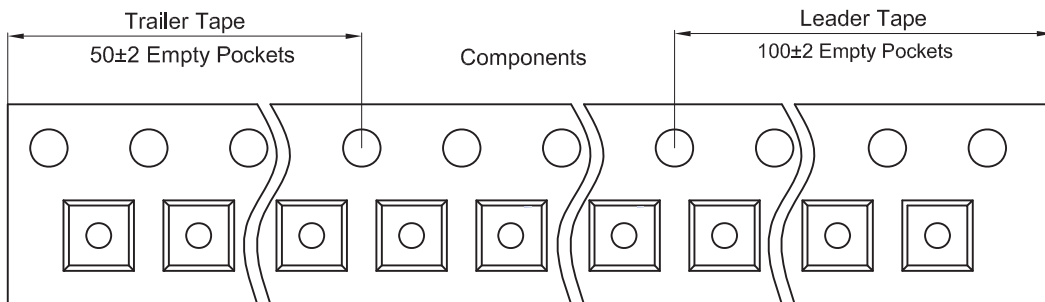
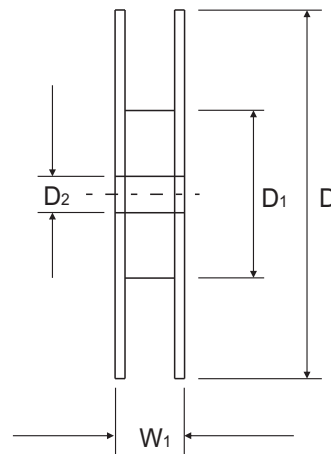
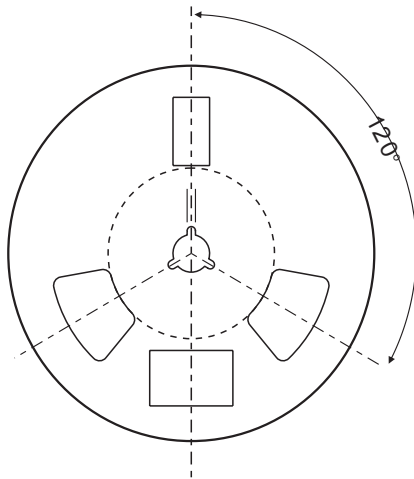
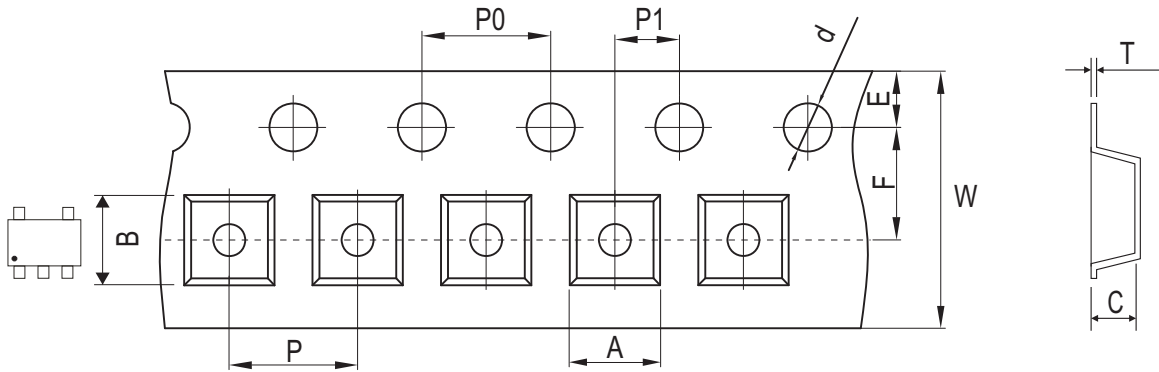
Fig. 3 - Power rating derating curve



# SMD ESD Protection Diode



## Reel Taping Specification



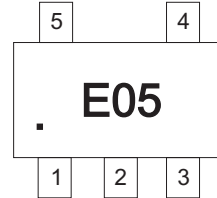
SOT-23-5	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.17 ± 0.10	3.23 ± 0.10	1.37 ± 0.10	1.50 ± 0.05	180.0 + 0.00 / - 0.30	60.00 ± 0.50	13.00 ± 0.20
	(inch)	0.125 ± 0.004	0.127 ± 0.004	0.054 ± 0.004	0.059 ± 0.002	7.087 + 0.00 / - 0.012	2.362 ± 0.020	0.512 ± 0.008

SOT-23-5	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 ± 0.05	8.00 + 0.30 / - 0.10	12.30 ± 0.20
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.012 / - 0.004	0.484 ± 0.008

## SMD ESD Protection Diode

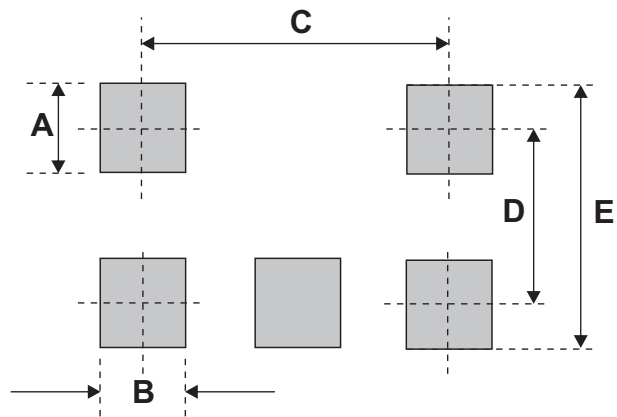
### Marking Code

Part Number	Marking Code
CPDT5-5V0C-HF	E05



### Suggested PAD Layout

SIZE	SOT-23-5	
	(mm)	(inch)
A	1.10	0.043
B	0.60	0.024
C	1.90	0.075
D	2.50	0.098
E	3.60	0.142



### Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOT-23-5	3,000	7