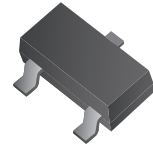


## CPDT-5V0-HF RoHS Device Halogen Free

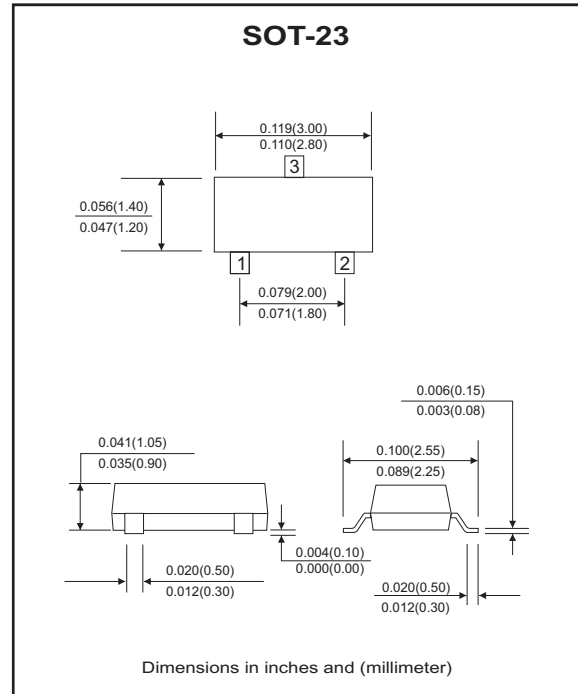


### Features

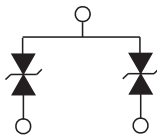
- Common anode ESD protection.
- IEC61000-4-2 Level 4 ESD protection.
- Surface mount package.
- High component density.

### Mechanical data

- Case: SOT-23 Standard package, molded plastic.
- Terminals: Tin plated, solderable per MIL-STD-750, method 2026.
- Marking code:E05
- Mounting position: Any.
- Weight: 0.0078 gram(approx.).



### Circuit Diagram



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Diode breakdown voltage	I <sub>R</sub> = 1mA	V <sub>BD</sub>	5.1	7.0		V
Leakage current	V <sub>R</sub> = 5V	I <sub>L</sub>		0.1	2.0	uA
Junction capacitance	V <sub>R</sub> = 0V, f = 1MHz	C <sub>T</sub>		15	20	pF
ESD capability	IEC 61000-4-2(air)	ESD			16	kV
	IEC 61000-4-2(contact)				8	
Clamping voltage	I <sub>PP</sub> = 1A, T <sub>P</sub> =8/20us	V <sub>C</sub>			10	V
	I <sub>PP</sub> = 5A, T <sub>P</sub> =8/20us	V <sub>C</sub>			15	V
Peak pulse power	T <sub>P</sub> =8/20us	P <sub>PP</sub>			75	W
Operation temperature		T <sub>j</sub>			125	°C
Storage temperature		T <sub>STG</sub>	-55		150	°C

## RATING AND CHARACTERISTIC CURVES (CPDT-5V0-HF)

Fig.1 - 8/20us Peak Pulse Current Wave Form Acc. IEC 61000-4-5

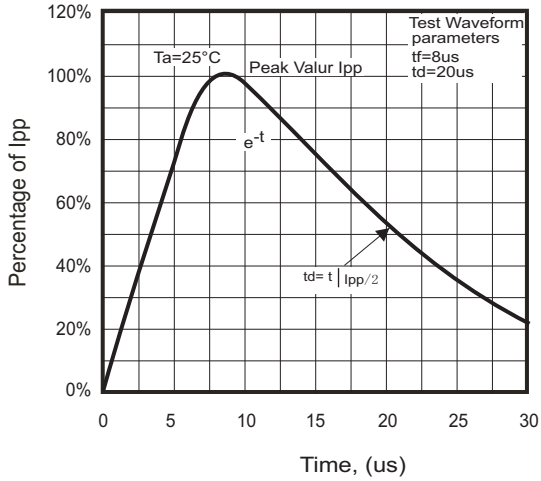


Fig.2 - Reverse Characteristics

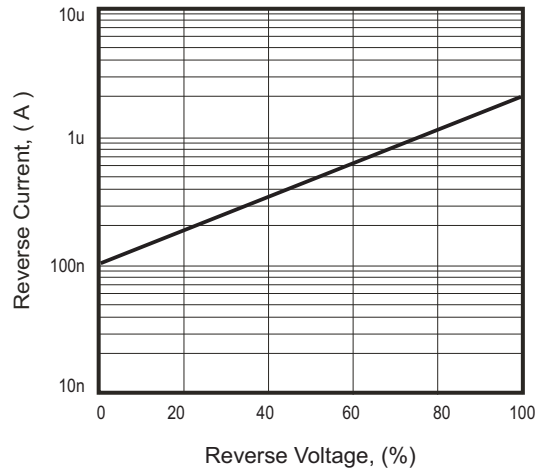


Fig.3 - Capacitance Between Terminals Characteristics

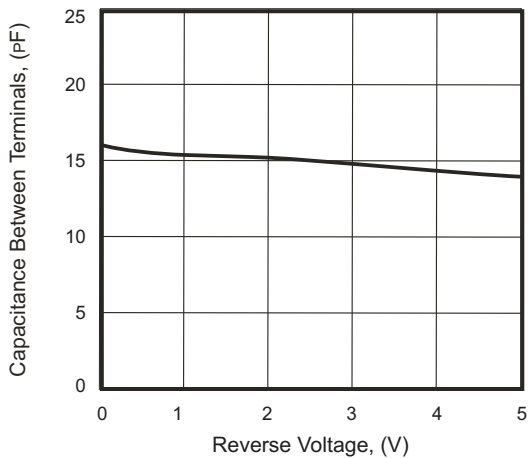
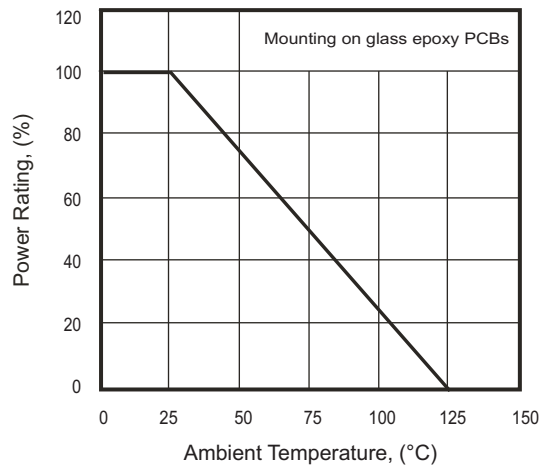
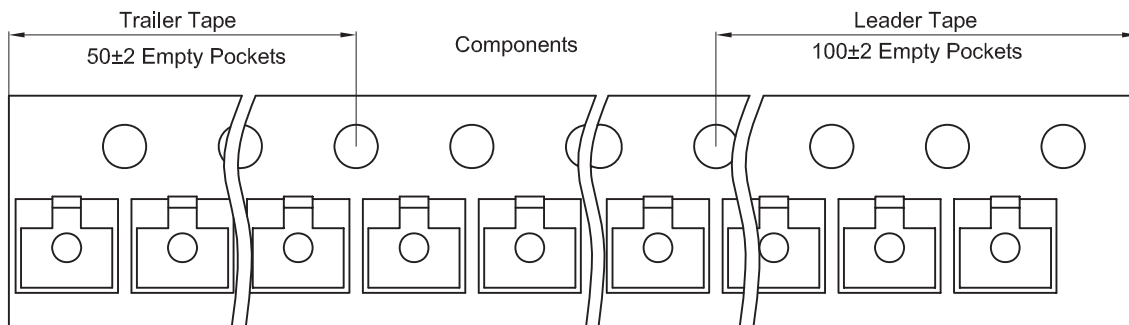
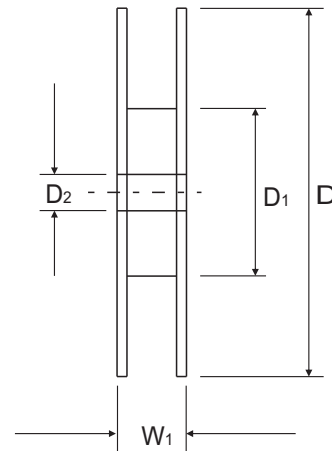
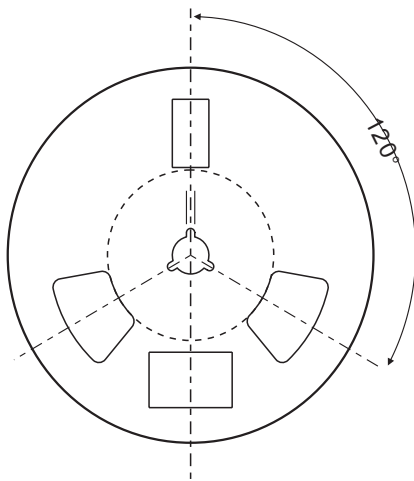
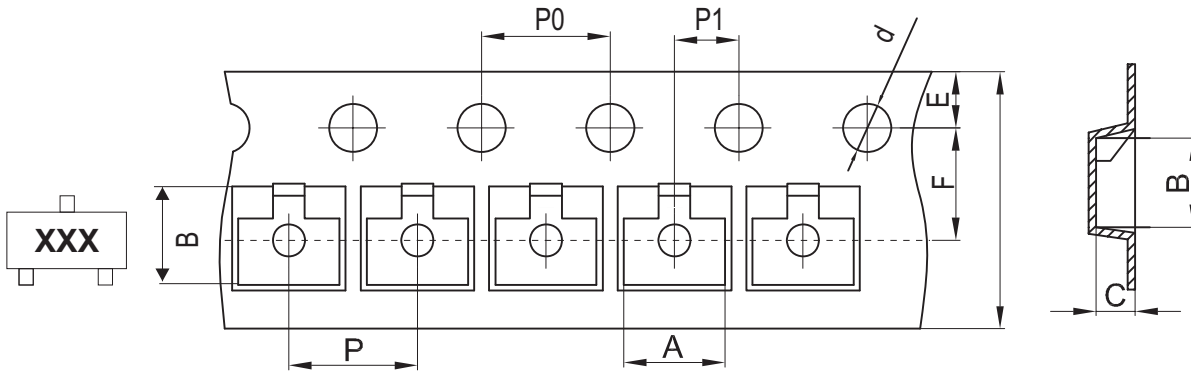


Fig.2 - Power Rating Derating Curve



## Reel Taping Specification



SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

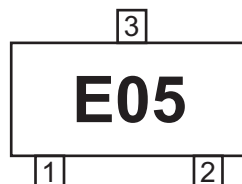
SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 / - 0.10	12.30 ± 1.0
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 / - 0.004	0.484 ± 0.039

Company reserves the right to improve product design , functions and reliability without notice.

REV:C

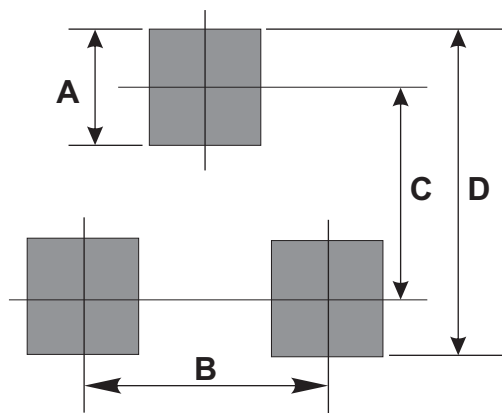
## Marking Code

Part Number	Marking Code
CPDT-5V0-HF	E05



## Suggested PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.80	0.031
B	1.90	0.075
C	2.02	0.080
D	2.82	0.111



## Standard Packaging

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

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Comchip Technology:](#)

[CPDT-5V0](#) [CPDT-5V0-HF](#)