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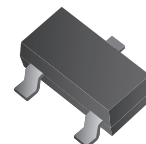
sales@integrated-circuit.com

SMD ESD Protection Diode



CPDT-5V0

RoHS Device

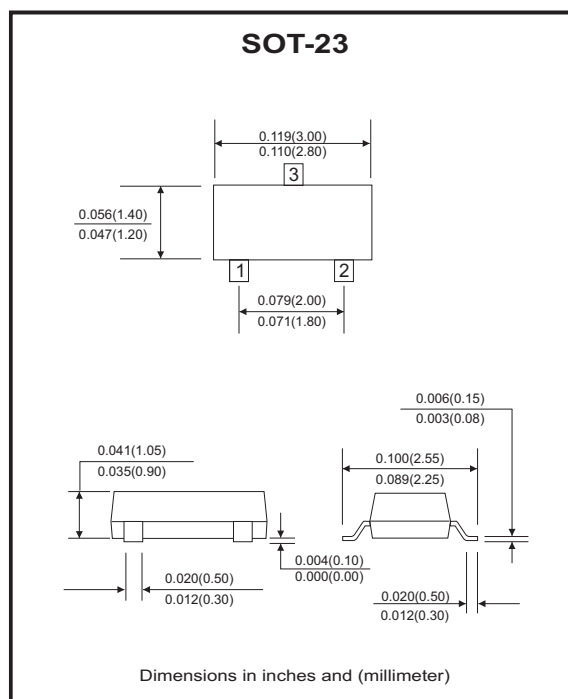
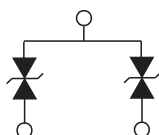


Features

- 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.).



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

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

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RATING AND CHARACTERISTIC CURVES (CPDT-5V0)

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

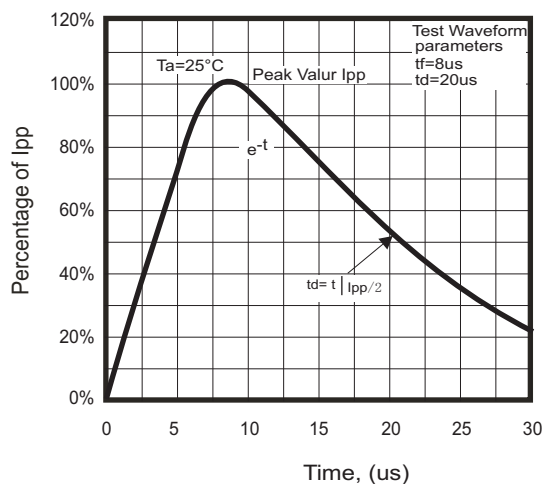


Fig.2 - Reverse characteristics

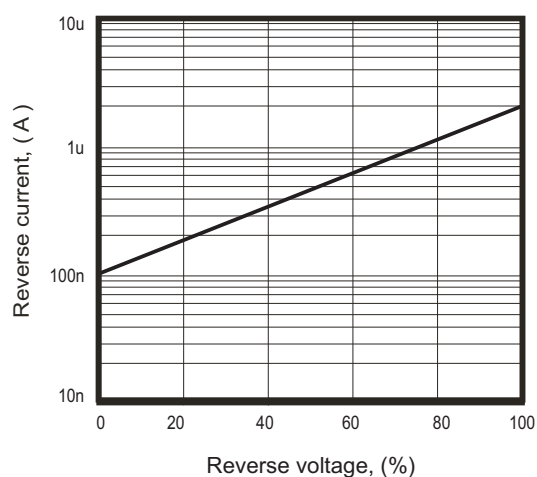


Fig.3 - Capacitance between terminals characteristics

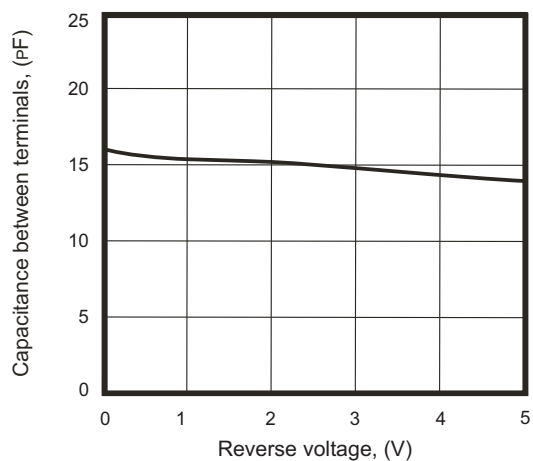
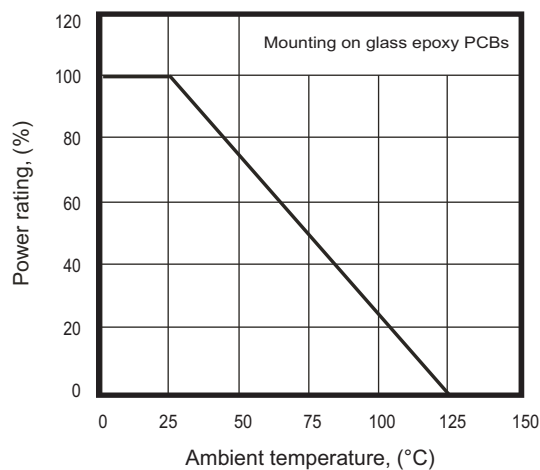
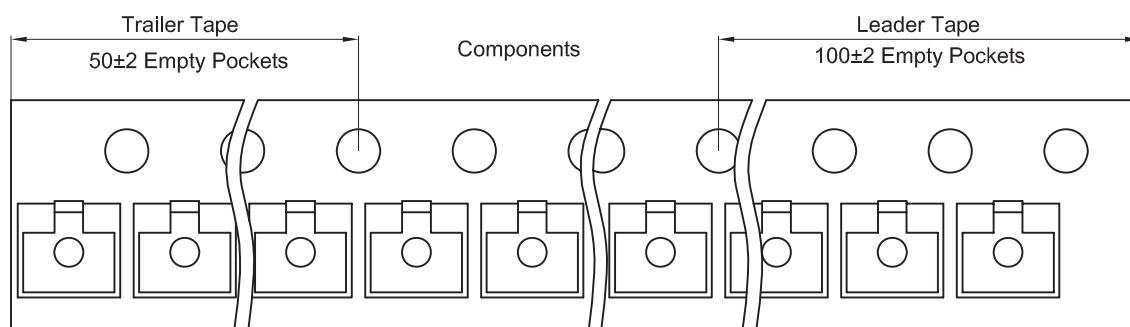
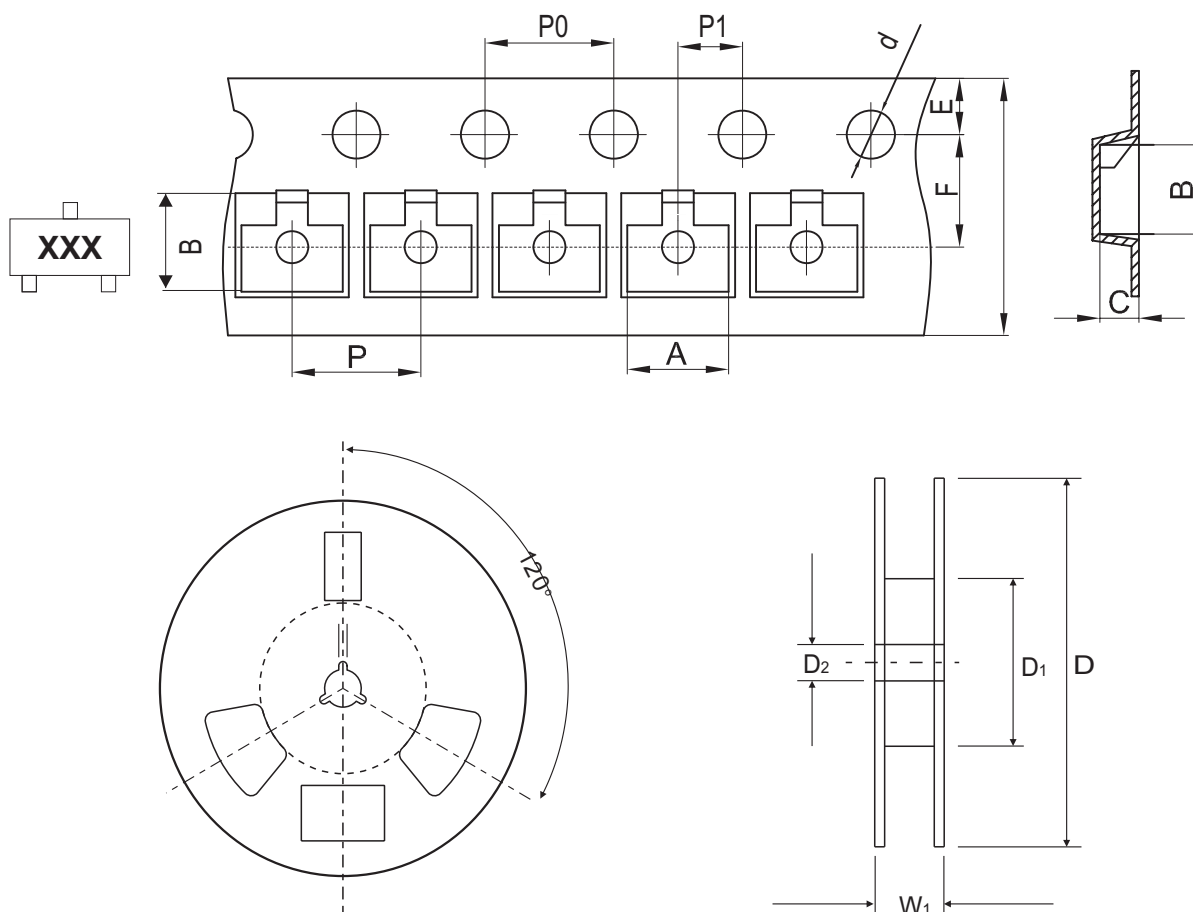


Fig.2 - Power rating derating curve



SMD ESD Protection Diode

Reel Taping Specification



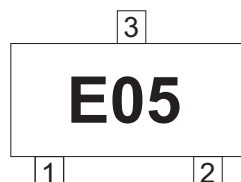
SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

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

SMD ESD Protection Diode

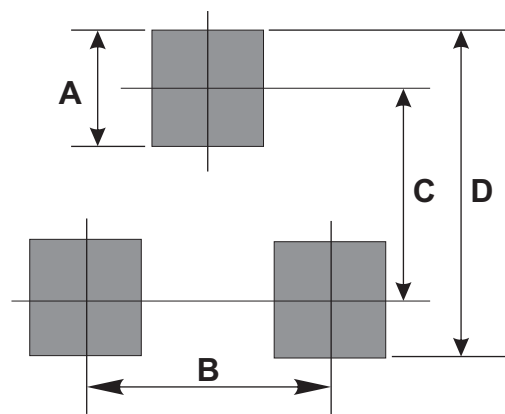
Marking Code

Part Number	Marking Code
CPDT-5V0	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