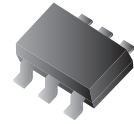


CPDT6-5V0U

RoHS Device



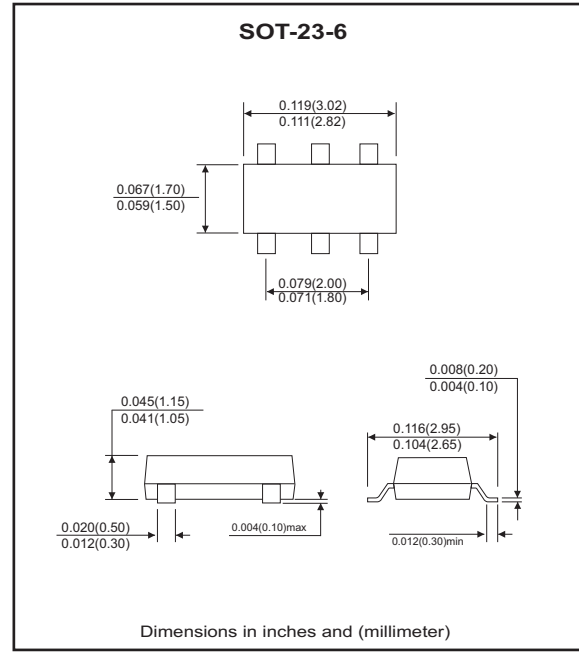
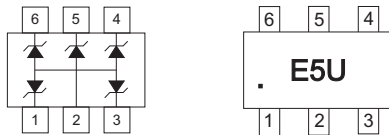
Features

- IEC61000-4-2 8kV(Contact), 15kV(air).
- Surface mount package.
- High component density.

Mechanical data

- Case: SOT-23-6 Standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750D, method 2026.
- Mounting position: Any.
- Approx. weight: 0.003 grams

Marking: E5U



Maximum Ratings and Electrical Characteristics

At $T_A=25^\circ\text{C}$ ambient temperature unless otherwise specified.

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Units
Diode breakdown voltage	V_{BD}	$I_Z=1\text{mA}$	6.1		7.1	V
Leakage current	I_L	$V_R=3\text{V}$		0.1	1.0	μA
Forward voltage	V_F	$I_F=5\mu\text{A}$			1.2	V
Junction capacitance	C_T	$V_R=0\text{V}$, $f=1\text{MHz}$		60	80	pF
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
ESD capability	V_{ESD}	$C=150\text{pF}$, $R=300\Omega$, forward and reverse 10 pulses	8			kV
Peak pulse power	P_{PP}				80	W
Storage temperature	T_{STG}		-55		+125	$^\circ\text{C}$
Junction temperature	T_J		-55		+125	$^\circ\text{C}$

RATING AND CHARACTERISTIC CURVES (CPDT6-5V0U)

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

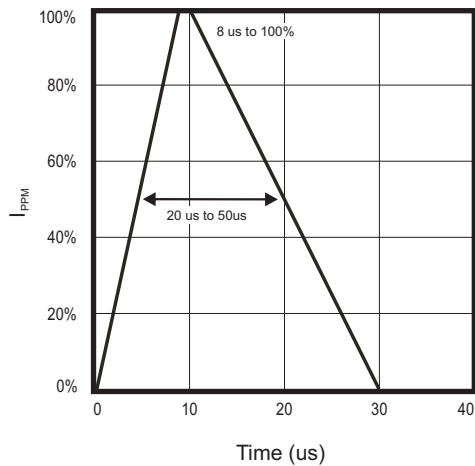


Fig. 2 - Power rating derating curve

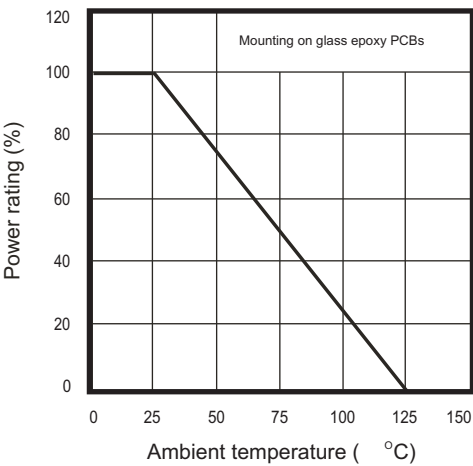


Fig. 3 - Clamping volatage vs. peak pulse current

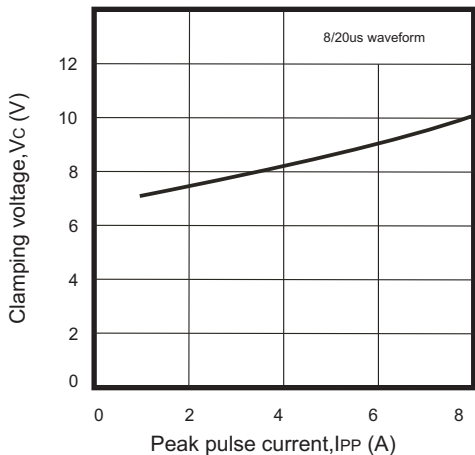
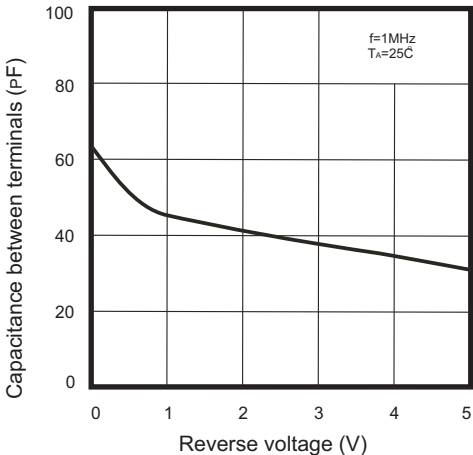
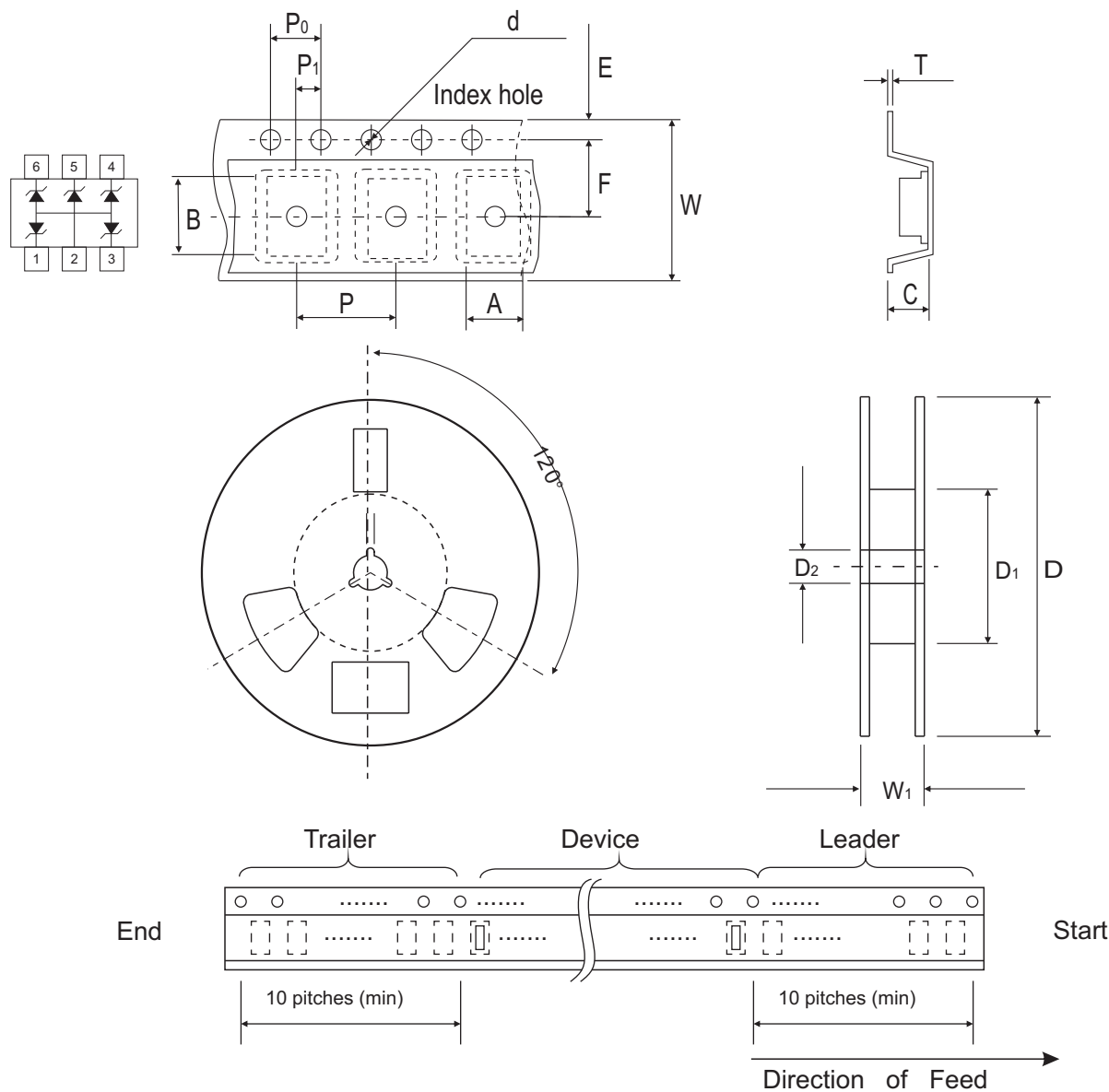


Fig. 4 - Capacitance between terminals characteristics



Reel Taping Specification

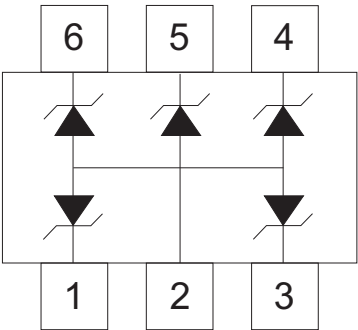


SOT-23-6	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.17 ± 0.10	3.23 ± 0.10	1.37 ± 0.10	1.55 ± 0.10	178 ± 1	50.0 MIN.	13.0 ± 0.20
	(inch)	0.124 ± 0.004	0.127 ± 0.004	0.054 ± 0.004	0.061 ± 0.004	7.008 ± 0.040	1.969 MIN.	0.512 ± 0.008

SOT-23-6	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	14.4 MAX.
	(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	0.567 MAX

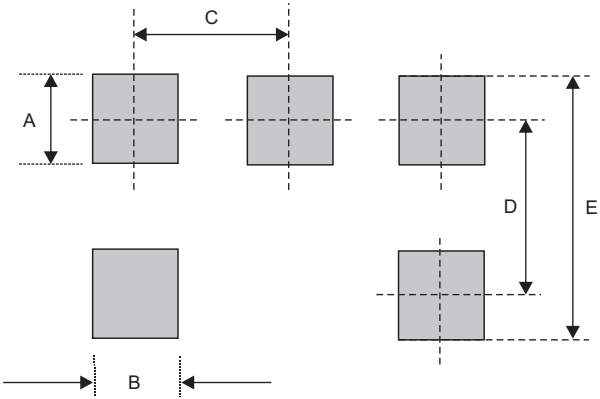
Marking Code

Park Number	Marking Code
CPDT6-5V0U	E5U



Suggested PAD Layout

SIZE	SOT-23-6	
	(mm)	(inch)
A	1.10	0.043
B	0.60	0.024
C	0.95	0.037
D	2.50	0.098
E	5.00	0.196



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
SOT-23-6	3000	7