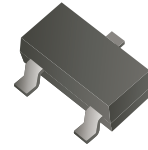


CPDT-3V3UB-HF Thru. CPDT-36VUB-HF

RoHS Device
Halogen Free

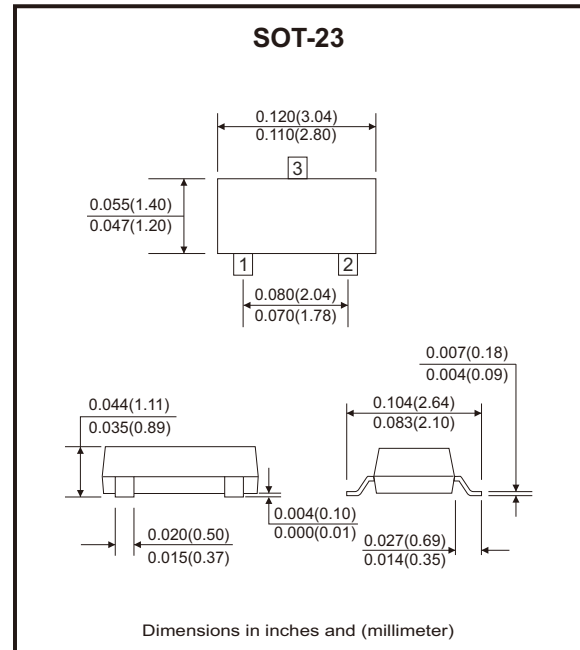


Features

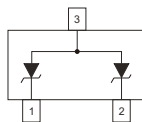
- IEC61000-4-2 (ESD) ± 30 kV (air/contact).
- IEC61000-4-4 (EFT) 40A (5/50ns).
- Protects one bidirectional line or two unidirectional lines.
- Low clamping voltage.
- Working voltages: 3.3V~36V
- Low leakage current.

Mechanical data

- Case: SOT-23 package.
- Flammability rating: UL 94V-0.
- High temperature soldering guaranteed: 260°C/10s.



Circuit Diagram



Maximum Rating (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (air)	ESD	± 30	kV
ESD per IEC 61000-4-2 (contact)			
Peak pulse power (8/20 μ s)	P _{PP}	See next table	W
Peak pulse current (8/20 μ s)	I _{PP}	See next table	A
Operating junction temperature range	T _J	-55 to +150	°C
Storage temperature range	T _{STG}	-55 to +150	°C
Lead solder temperature	T _L	260 (10 sec.)	°C

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

Part No.	V _{RWM} (V) Max	V _{BR} (V) Min	I _T (mA)	V _C @1A (V)	V _C (V)		P _{PP} (W)	I _R (μA) Max	C _J (pF) Typ
				Max	Max	I _{PP} (A)			
CPDT-3V3UB-HF	3.3	4	1	7.0	14	20	280	40	310
CPDT-5V0UB-HF	5	6	1	9.8	18	17	306	10	220
CPDT-8V0UB-HF	8	8.5	1	13.4	24	15	360	2	160
CPDT-12VUB-HF	12	13.3	1	19	32	11	352	1	70
CPDT-15VUB-HF	15	16.7	1	24	38	10	380	1	60
CPDT-18VUB-HF	18	20	1	29	45	9	405	1	60
CPDT-20VUB-HF	20	22.3	1	35	50	8	400	1	55
CPDT-24VUB-HF	24	26.7	1	43	52	7	364	1	40
CPDT-36VUB-HF	36	40	1	60	75	5	375	1	35

Typical Rating and Characteristic Curves (CPDT-3V3UB-HF Thru. CPDT-36VUB-HF)

Fig.1 - 8/20 μ s Waveform per IEC 61000-4-5

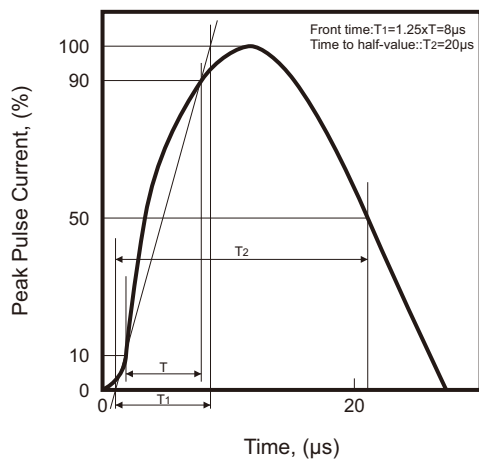


Fig.2 - Contact Discharge Current Waveform per IEC 61000-4-2

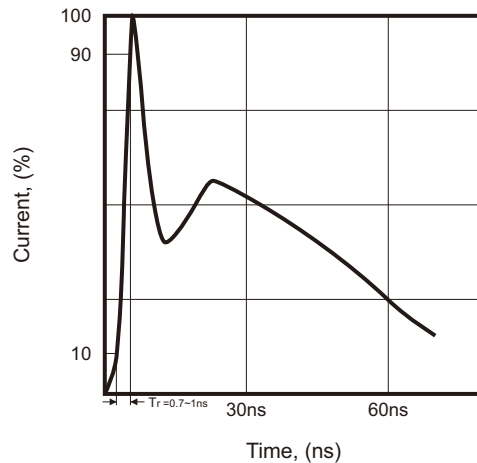


Fig.3 - Voltage vs Capacitance

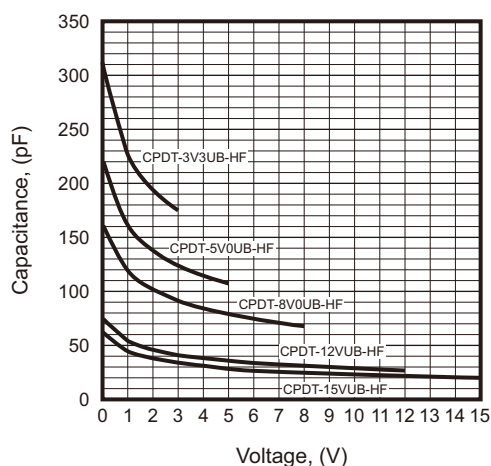


Fig.4 - Voltage vs Capacitance

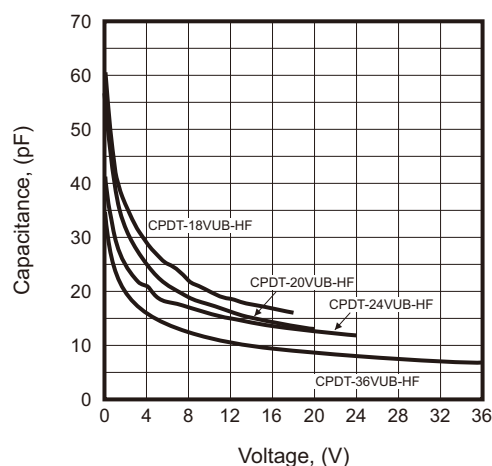


Fig.5 - Clamping Voltage vs Peak Pulse Current

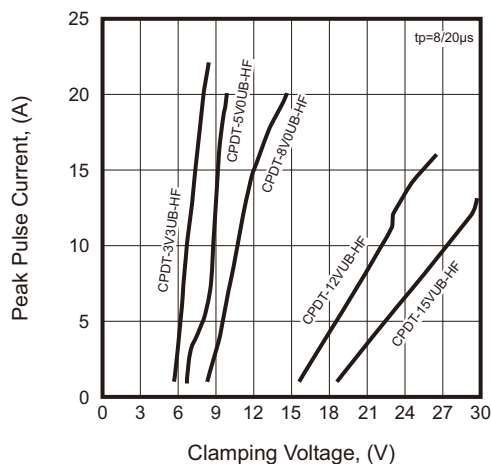
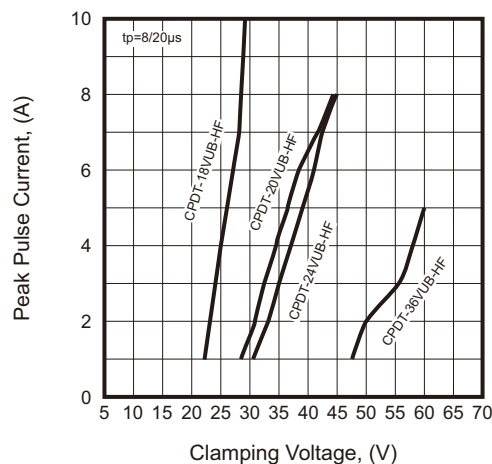
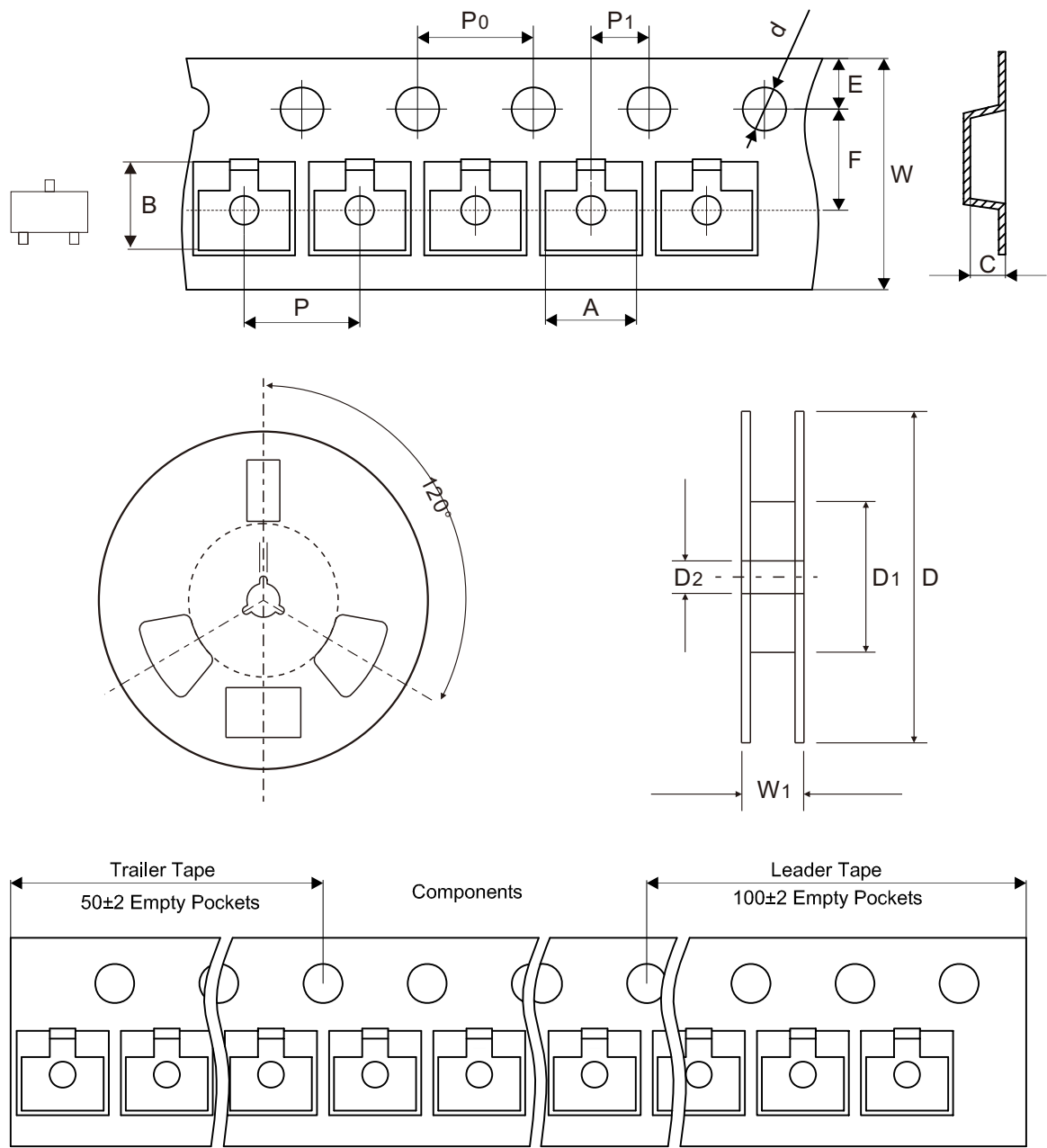


Fig.6 - Clamping Voltage vs Peak Pulse Current



Reel Taping Specification

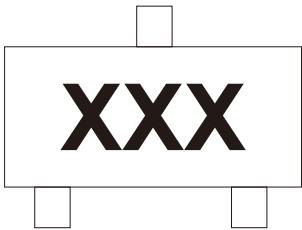


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

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 ± 1.00
	(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

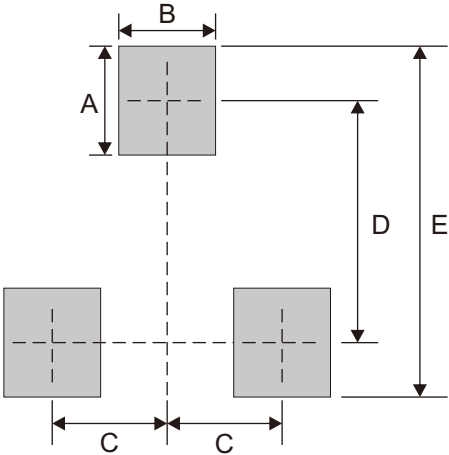
Part Number	Marking Code
CPDT-3V3UB-HF	M03
CPDT-5V0UB-HF	M05
CPDT-8V0UB-HF	M08
CPDT-12VUB-HF	M12
CPDT-15VUB-HF	M15
CPDT-18VUB-HF	M18
CPDT-20VUB-HF	M20
CPDT-24VUB-HF	M24
CPDT-36VUB-HF	M36



xxx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.90	0.035
B	0.80	0.031
C	0.95	0.037
D	2.00	0.079
E	2.90	0.114



Standard Packaging

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