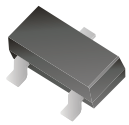
Dual ESD Protection Diode

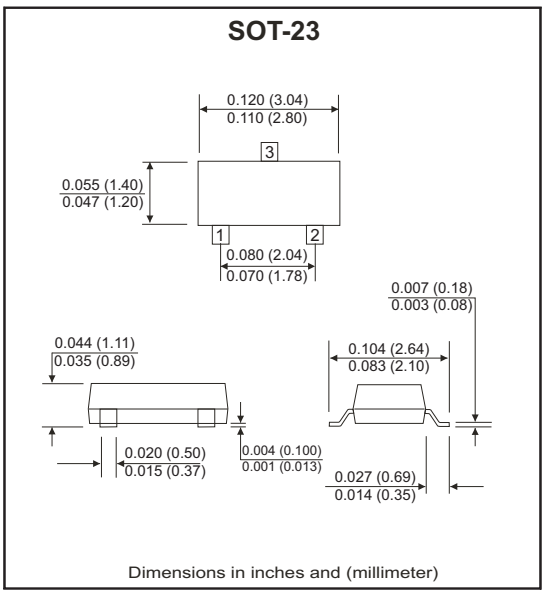
CPDT-4V0UA-HF Thru. CPDT-15UA-HF

RoHS Device
Halogen free



Features

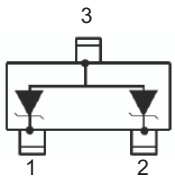
- 2 Unidirectional Transil functions.
- Low Leakage current.
- 300W peak pulse power(8/20μs).
- Transient protection for data lines as per.
- IEC61000-4-2 ESD protection.



Mechanical data

- Case: SOT-23 , plastic package.
- Mounting position: Any.

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak pulse power (tp = 8/20μs)	P_{PP}	300	W
Lead temperature for soldering during 10s	T_L	260	°C
Storage temperature range	T_{STG}	-55 to +150	°C
Operating temperature range	T_{OP}	-40 to +125	°C
Junction temperature	T_J	150	°C
Electrostatic discharge IEC 61000-4-2(Air discharge) IEC 61000-4-2(Contact discharge)	V_{PP}	 15 8	kV

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

Electrical Characteristics (at T_A=25°C unless otherwise specified)

Part No.	Rated Stand-off Voltage	Max. Leakage Current @ V_{RM}	Max. Breakdown Voltage @ 1mA	Max. Clamping Voltage (Note 1) @ 1A	Max. Clamping Voltage (Note 1) @ 5A	Max. Pulse Peak Current @tp=8/20us	Max. Capacitance @ 0V, 1MHz
	V_{RM} (V)	I_{RM} (μA)	V_{BR} (V)	VC (V)	VC (V)	I_{PPM} (A)	C (pF)
CPDT-4V0UA-HF	4.0	20.0	4.0	8.5	10.5	17	300
CPDT-5V0UA-HF	5.0	5.0	6.0	9.8	12.5	17	220
CPDT-8V0UA-HF	8.0	5.0	8.5	13.4	15.0	15	190
CPDT-12VUA-HF	12.0	1.0	13.3	19.0	28.0	12	90
CPDT-15VUA-HF	15.0	1.0	16.7	24	39.0	10	60

NOTES：1. 8/20 waveform used. (see fig1.)

RATING AND CHARACTERISTIC CURVES (CPDT-4V0UA-HF Thru. CPDT-15UA-HF)

Fig.1 - Pulse Waveform

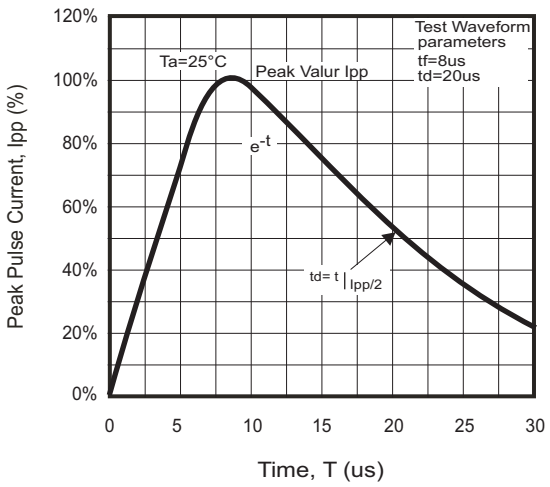


Fig.2 - Power Derating

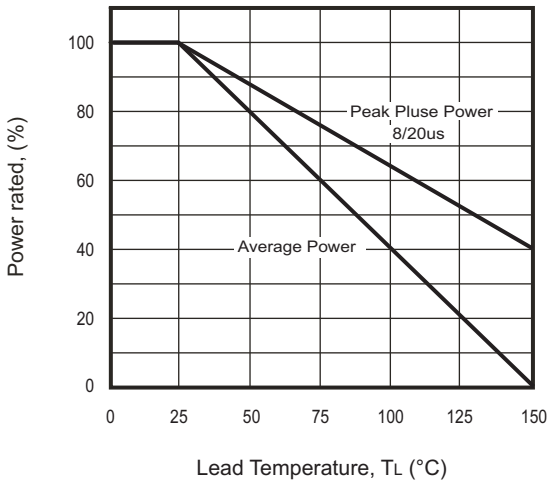
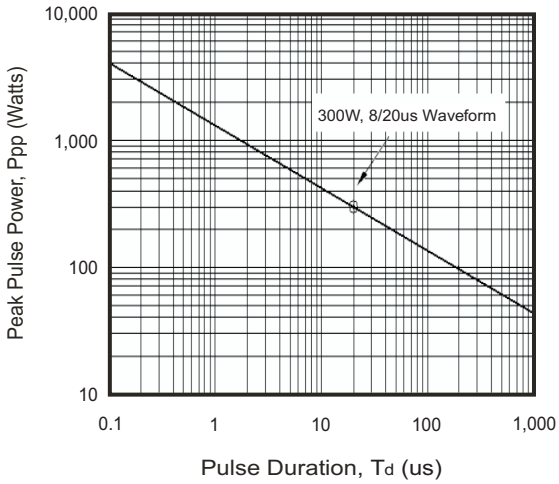


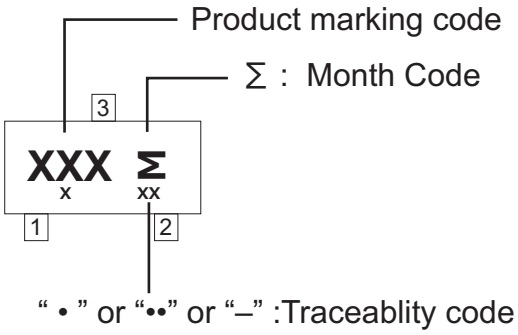
Fig.3 - Peak Pulse Power vs. Pulse Time



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

Marking Code

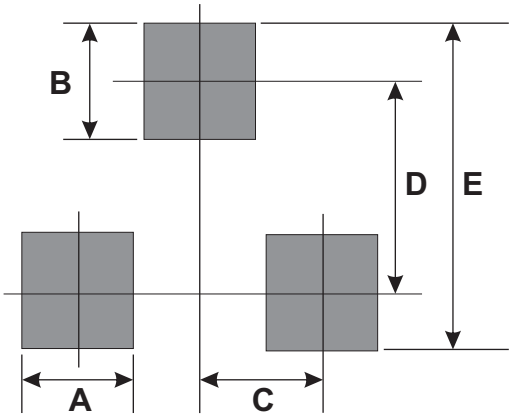
Part Number	Marking Code
CPDT-4V0UA-HF	04C Σ
CPDT-5V0UA-HF	05C Σ
CPDT-8V0UA-HF	08C Σ
CPDT-12VUA-HF	12C Σ
CPDT-15VUA-HF	15C Σ



Month	Odd Year (per A.D.)	Even Year (per A.D.)
Jan	1	E
Feb	2	F
Wer	3	H
Apr	4	J
May	5	K
Jun	6	L
Jul	7	N
Aug	8	P
Sep	9	U
Oct	T	X
Nov	V	Y
Dec	C	Z

Suggested PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.80	0.031
B	0.90	0.035
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

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