

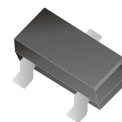
Dual ESD Protection Diode

ACPDT-5V0UA-HF Thru. ACPDT-12UA-HF

Voltage: 5.0 to 12 Volts

RoHS Device

Halogen free



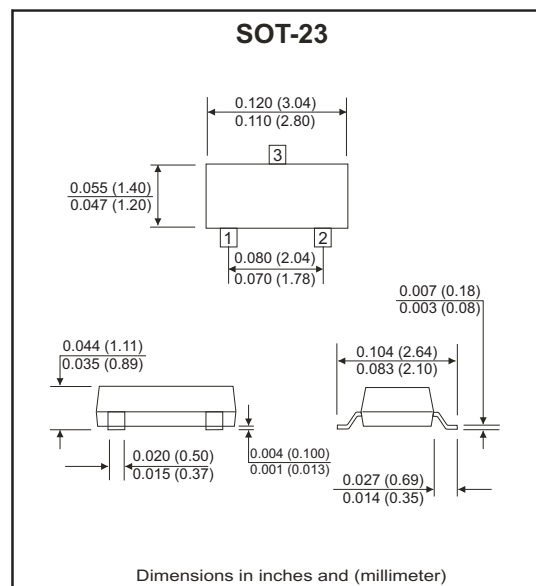
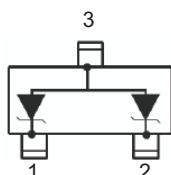
Features

- 2 Unidirectional Transil functions.
- Low Leakage current.
- 300W peak pulse power(8/20 μ s).
- Transient protection for data lines as per.
- IEC61000-4-2 ESD protection.
- Comply with AEC-Q101.

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 = 8/20 μ s)	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

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Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise specified)

Part No.	Rated Stand-off Voltage	Max. Leakage Current @ V_{RM}	Max. Breakdown Voltage @ 1mA	Max. Clamping Voltage (Note 1)		Max. Pulse Peak Current @ $t_p=8/20\mu\text{s}$	Max. Capacitance @ 0V, 1MHz
	V_{RM} (V)	I_{RM} (μA)	V_{BR} (V)	@ 1A V_C (V)	@ 5A V_C (V)	I_{PPM} (A)	C (pF)
ACPDT-5V0UA-HF	5.0	5.0	6.0	9.8	12.5	17	220
ACPDT-12VUA-HF	12.0	1.0	13.3	19.0	28.0	12	90

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

RATING AND CHARACTERISTIC CURVES (ACPDT-5V0UA-HF Thru. ACPDT-12UA-HF)

Fig.1 - Pulse Waveform

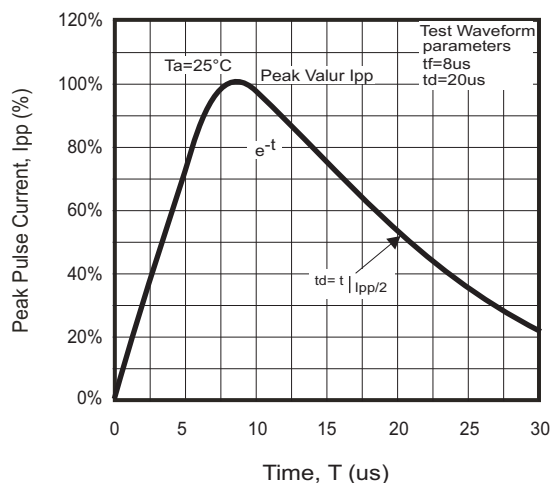


Fig.2 - Power Derating

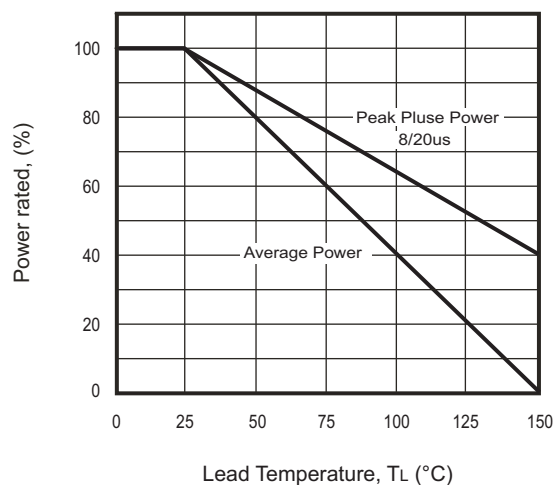
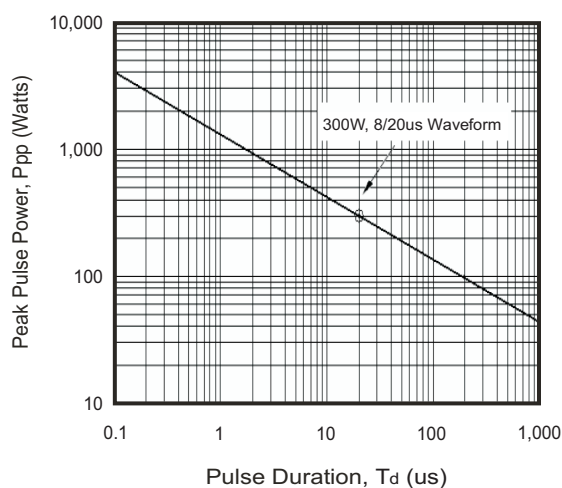


Fig.3 - Peak Pulse Power vs. Pulse Time

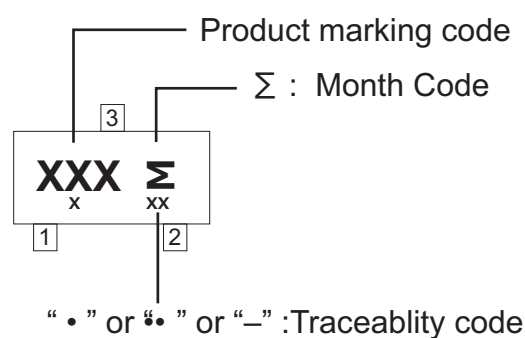


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Marking Code

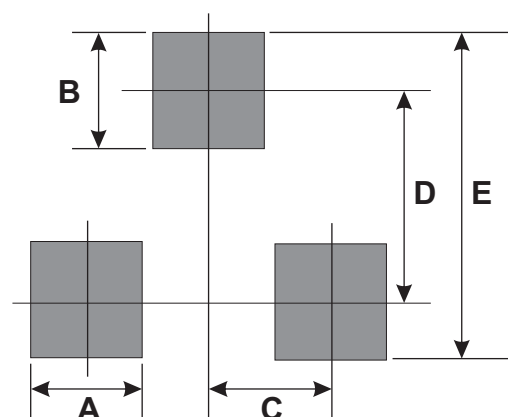
Part Number	Marking Code
ACPDT-5V0UA-HF	05C Σ
ACPDT-12VUA-HF	12C Σ



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

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Mouser Electronics

Authorized Distributor

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[ACPDT-8V0UA-HF](#) [ACPDT-12VUA-HF](#) [ACPDT-4V0UA-HF](#)