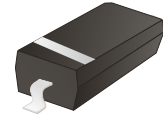


## ACDSW21-HF

RoHS Device  
Halogen Free



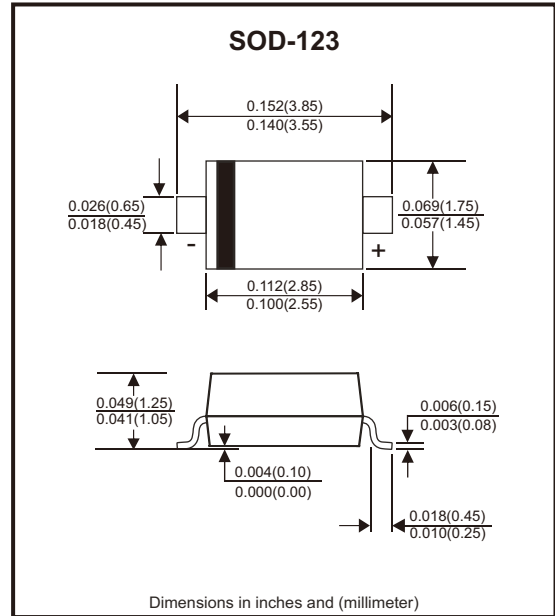
### Features

- Fast switching speed.
- Low reverse current.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.
- AEC-Q101 Qualified.

### Mechanical data

- Case: SOD-123, molded plastic.
- Weight: 0.01 grams (approx.).

### Circuit diagram



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

Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	V <sub>RM</sub>	250	V
Peak repetitive reverse voltage	V <sub>RRM</sub>	200	V
Working peak reverse voltage	V <sub>RWM</sub>		
RMS reverse voltage	V <sub>R(RMS)</sub>	141	V
Average rectified output current	I <sub>o</sub>	200	mA
Non-repetitive peak forward surge current @ t=8.3ms	I <sub>FSM</sub>	2.0	A
Power dissipation	P <sub>D</sub>	250	mW
Thermal resistance (junction to ambient)	R <sub>θJA</sub>	500	°C/W
Junction temperature	T <sub>J</sub>	-55 ~ +150	°C
Storage temperature	T <sub>STG</sub>	-55 ~ +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F</sub> =100mA I <sub>F</sub> =200mA	V <sub>F</sub>			1.0 1.25	V
Reverse current	V <sub>R</sub> =200V	I <sub>R</sub>			0.1	μA
Junction capacitance	V <sub>R</sub> =0V, f=1MHz	C <sub>j</sub>			5	pF
Reverse recovery time	I <sub>F</sub> =I <sub>R</sub> =30mA, I <sub>rr</sub> =0.1*I <sub>R</sub> , R <sub>L</sub> =100Ω	t <sub>rr</sub>			50	ns

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## Rating and Typical Characteristic Curves (ACDSW21-HF)

Fig.1 - Forward Characteristic

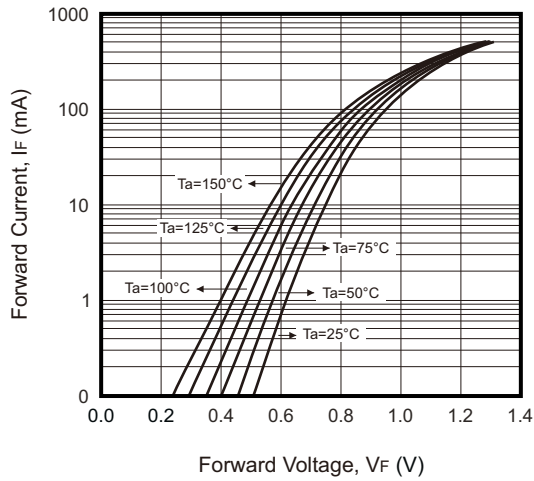


Fig.2 - Reverse Characteristic

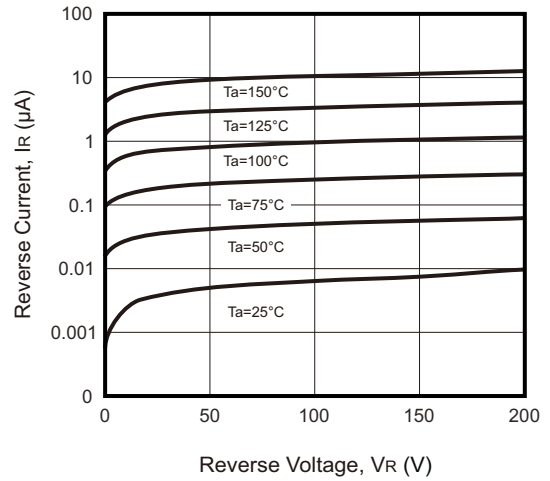


Fig.3 - Capacitance Characteristics

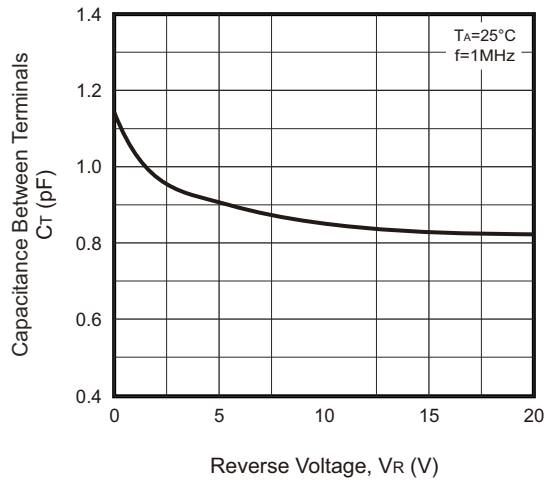
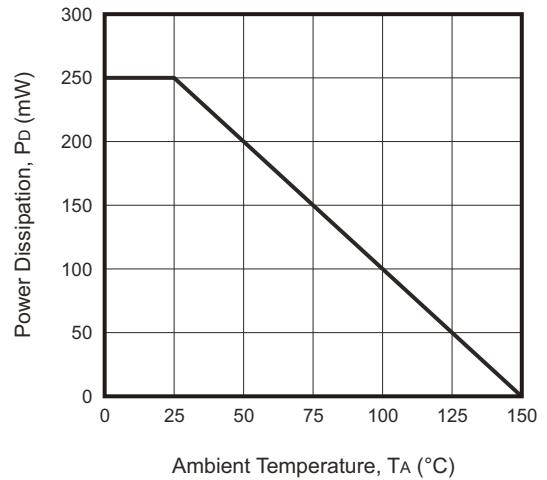
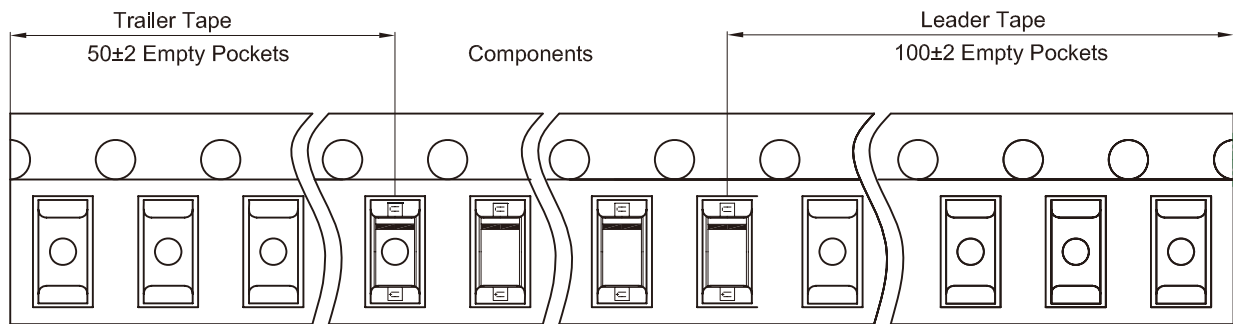
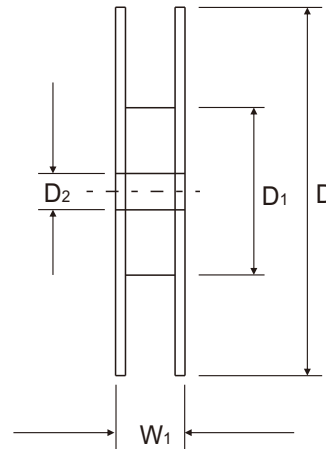
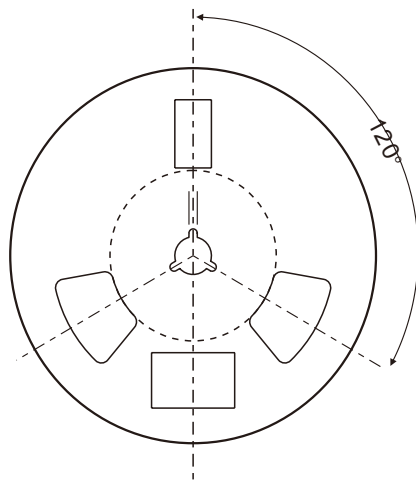
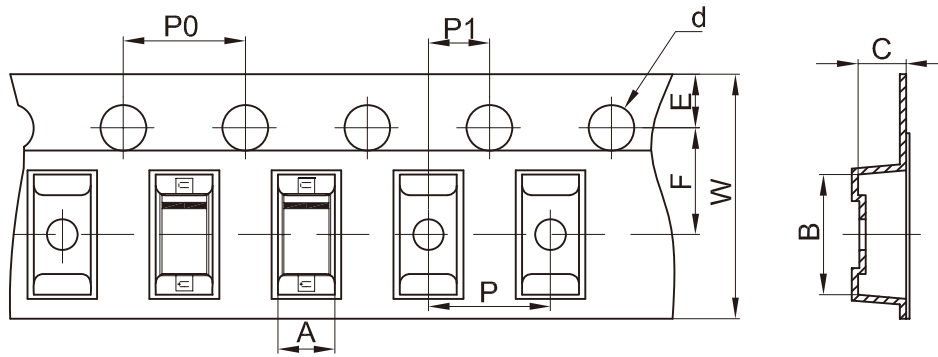


Fig.4 - Power Derating Curve



## Reel Taping Specification



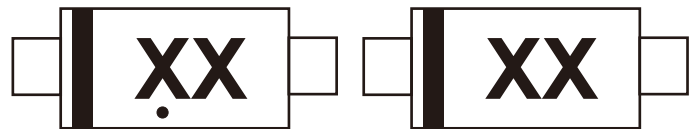
SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.10	3.95 ± 0.10	1.57 ± 0.10	1.55 ± 0.10	178 ± 1.00	54.40 ± 0.40	13.0 ± 0.20
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

SOD-123	SYMBOL	E	F	P	P1	P0	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	2.00 ± 0.10	4.00 ± 0.10	8.00 ± 1.00	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.158 ± 0.004	0.079 ± 0.004	0.158 ± 0.004	0.315 ± 0.039	0.484 ± 0.039

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## Marking Code

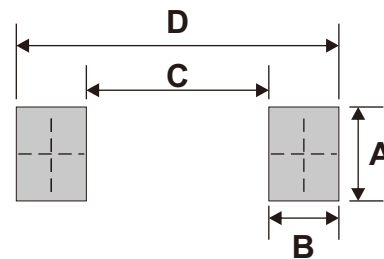
Part Number	Marking Code
ACDSW21-HF	T3



The marking bar indicates the cathode  
Solid dot “•” = Control Code

## Suggested PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	1.22	0.048
B	0.91	0.036
C	2.36	0.093
D	4.19	0.165



Note: 1.The pad layout is for reference purposes only.

## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOD-123	3,000	7