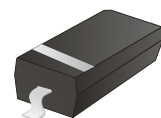


ACDSW4448-HF

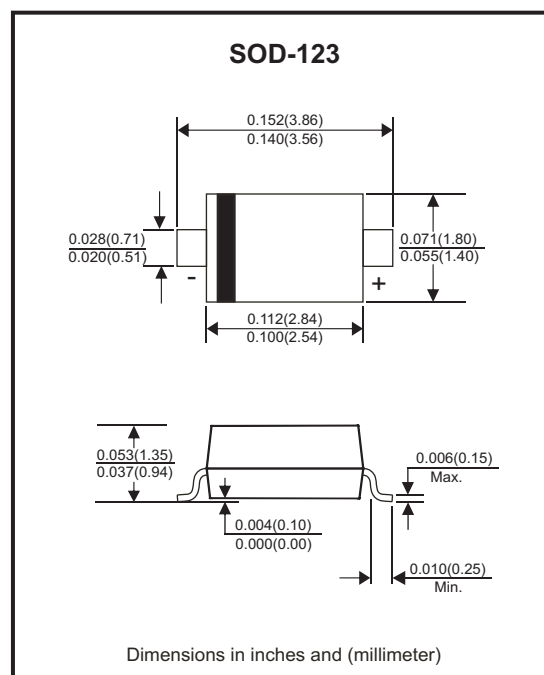
Reverse Voltage: 75 V
Forward Current: 200mA
RoHS Device
Halogen Free


Features

- Fast switching speed.
- High conductance.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.
- Comply with AEC-Q101

Mechanical data

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-750, method 2026.
- Weight: 0.012 grams(approx.).



Circuit diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive peak reverse voltage	V _{RRM}	75	V
Working peak reverse voltage	V _{RWM}		
DC blocking voltage	V _R		
RMS reverse voltage	V _{R(RMS)}	53	V
Average rectified output current	I _O	200	mA
Repetitive peak forward current	I _{FM}	300	mA
Non-Repetitive peak forward surge current @t=1μs	I _{FSM}	2	A
Power dissipation (Note 1)	P _D	425	mW
Thermal resistance from junction to ambient air (Note 1)	R _{θJA}	290	°C/W
Junction and Storage temperature range	T _J , T _{STG}	-55~+150	°C

Note: 1. Valid provided that terminals are kept at ambient temperature.

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

Parameter	Conditions	Symbol	Min	Max	Unit
Forward voltage	$I_F = 1 \text{ mA}$	V_F		715	mV
	$I_F = 10 \text{ mA}$			855	
	$I_F = 50 \text{ mA}$			1000	
	$I_F = 150 \text{ mA}$			1250	
Reverse current (Note 1)	$V_R = 75 \text{ V}$	I_R		2.5	μA
	$V_R = 75 \text{ V}, T_J = 150^\circ\text{C}$			50	
	$V_R = 25 \text{ V}, T_J = 150^\circ\text{C}$			30	
	$V_R = 20 \text{ V}$			0.025	
Capacitance between terminals	$f = 1 \text{ MHz}, V_R = 0 \text{ V}$	C_J		2	pF
Reverse recovery time	$I_F = I_R = 10 \text{ mA}, R_L = 100 \Omega, I_{rr} = 0.1 \times I_R$	T_{RR}		4	nS

Note: 1. Short duration pulse test used to minimize self-heating effect.

Typical Characteristics (ACDSW4448-HF)

Fig.1 - Typical Forward Characteristics

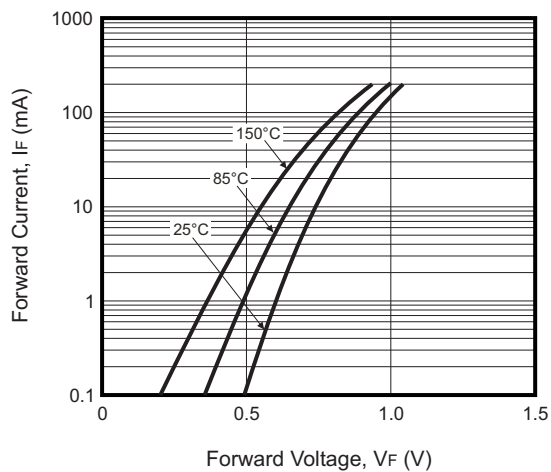


Fig.2 - Typical Reverse Characteristics

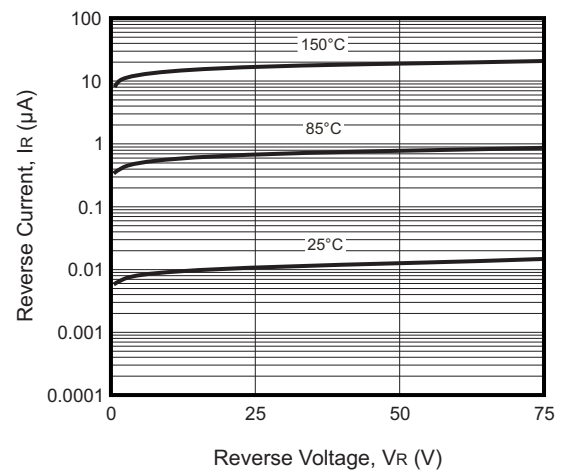
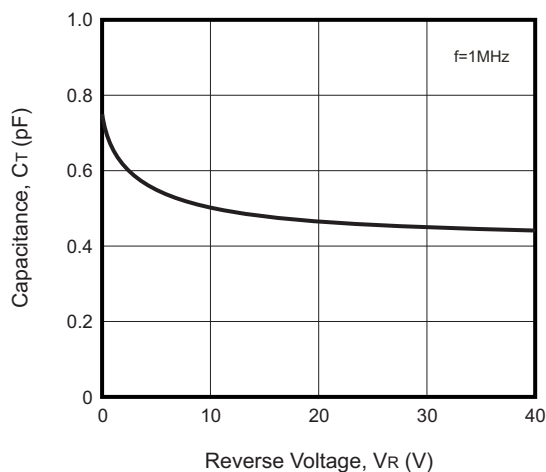


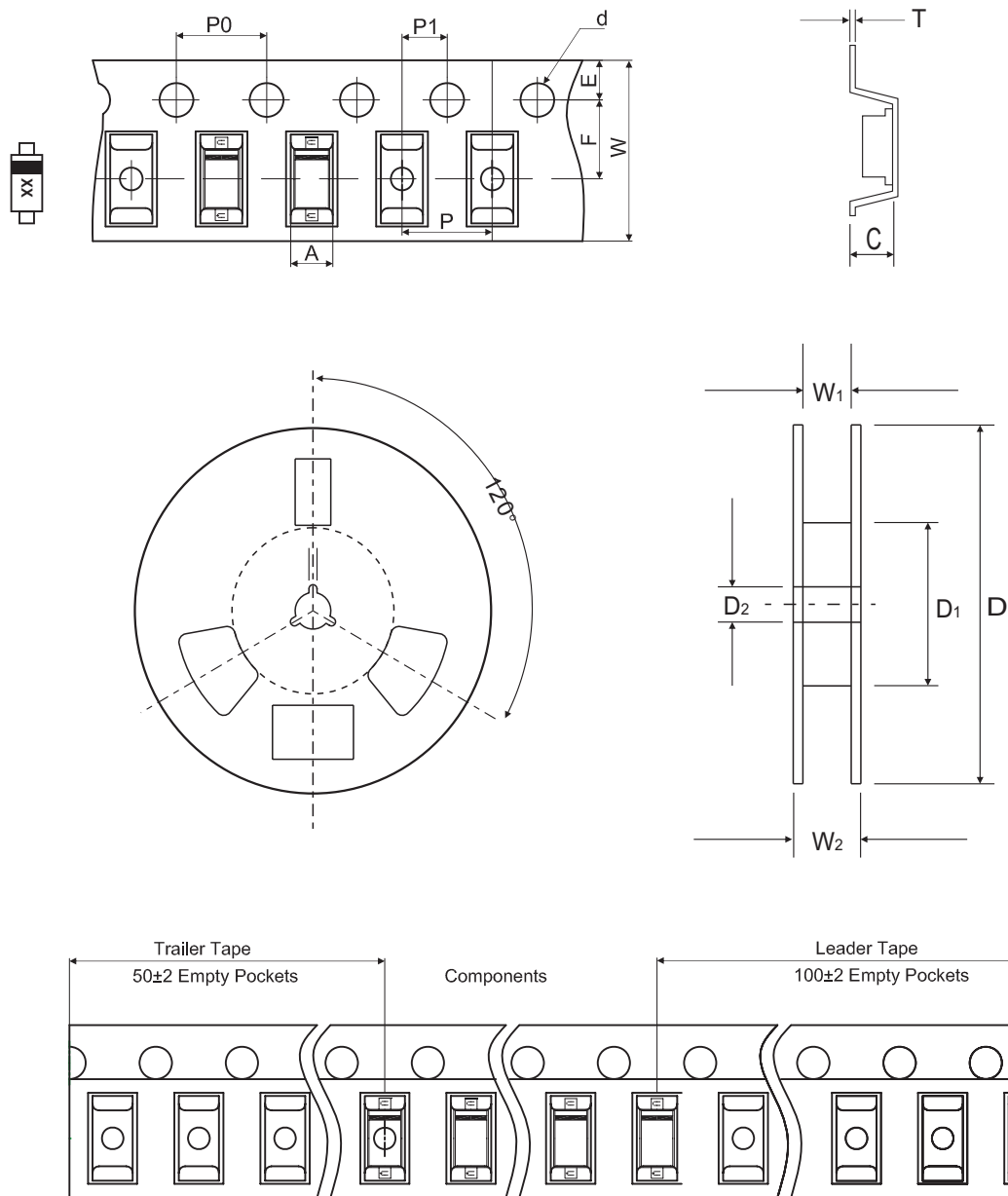
Fig.3 - Typical Capacitance Characteristics



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

REV: A

Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	T	D	D ₁	D ₂
	(mm)	See Note 1			1.55 ± 0.05	0.60 Max.	178.00 Max.	50.00 Min.	13.00 ± 0.50
	(inch)				0.061 ± 0.002	0.024 Max.	7.000 Max.	1.969 Min.	0.512 ± 0.020

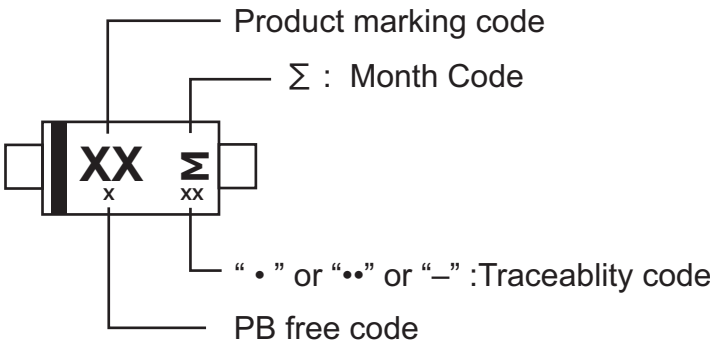
SOD-123	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁	W ₂
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.30 Max.	8.40 ^{+1.50} _{-0.00}	10.90 Max.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.327 Max.	0.331 ^{+0.059} _{-0.000}	0.429 Max.

Notes: 1. A, B, and C are determined by component size. The clearance between the components and the cavity must be within 0.05mm min. to 0.50mm max.

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Marking Code

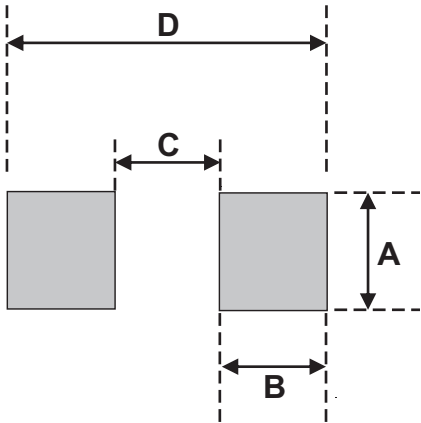
Part Number	Marking Code
ACDSW4448-HF	T4



Month	Odd Year (per A.D.)	Even Year (per A.D.)
Jan	1	E
Feb	2	F
Mar	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	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