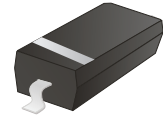


## ACDSW4448-HF

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

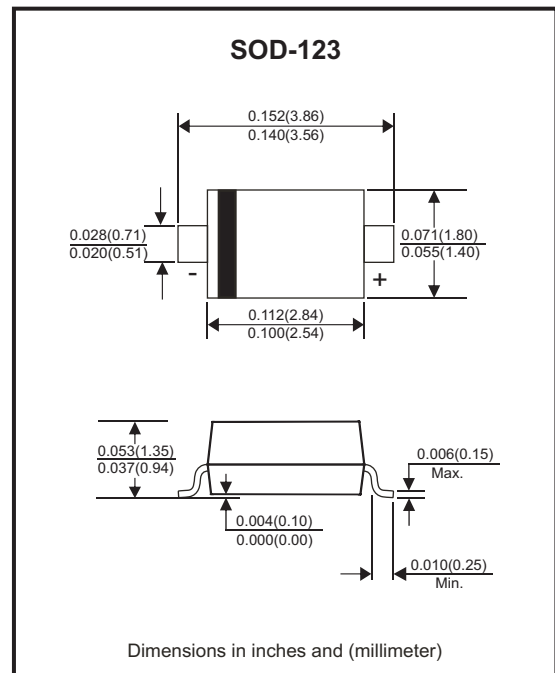


### Features

- 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	VRRM	75	V
Working peak reverse voltage	VRWM		
DC blocking voltage	VR		
RMS reverse voltage	VR(RMS)	53	V
Average rectified output current	Io	200	mA
Repetitive peak forward current	IFM	300	mA
Non-Repetitive peak forward surge current @t=1µs	IFSM	2	A
Power dissipation (Note 1)	PD	425	mW
Thermal resistance from junction to ambient air (Note 1)	RθJA	290	°C/W
Junction and Storage temperature range	TJ, TSTG	-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	$\mu\text{A}$
	$V_R = 75 \text{ V}, T_J = 150^\circ\text{C}$			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

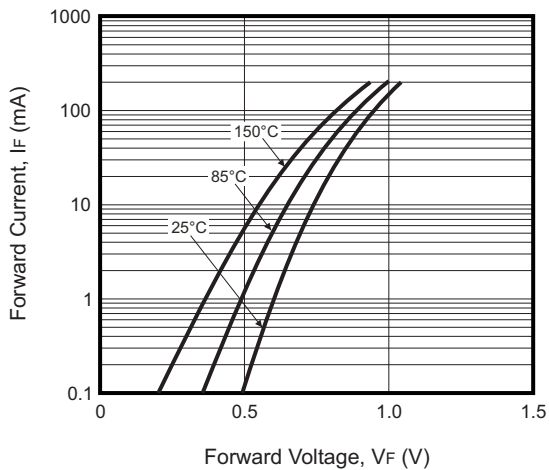


Fig.2 - Typical Reverse Characteristics

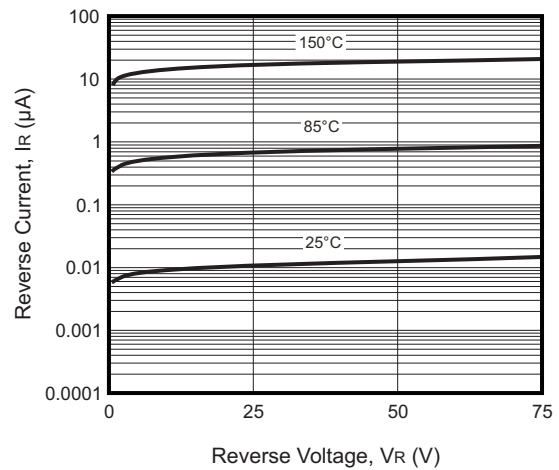
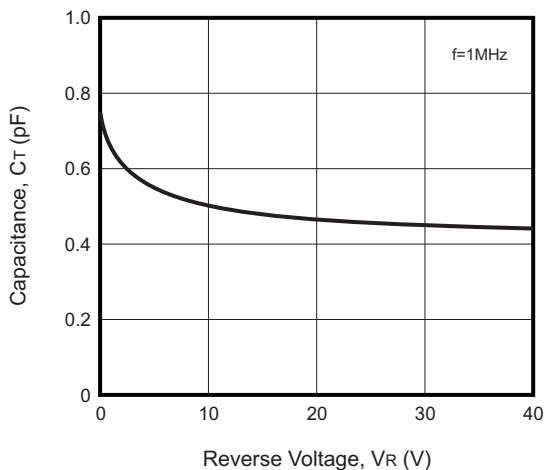


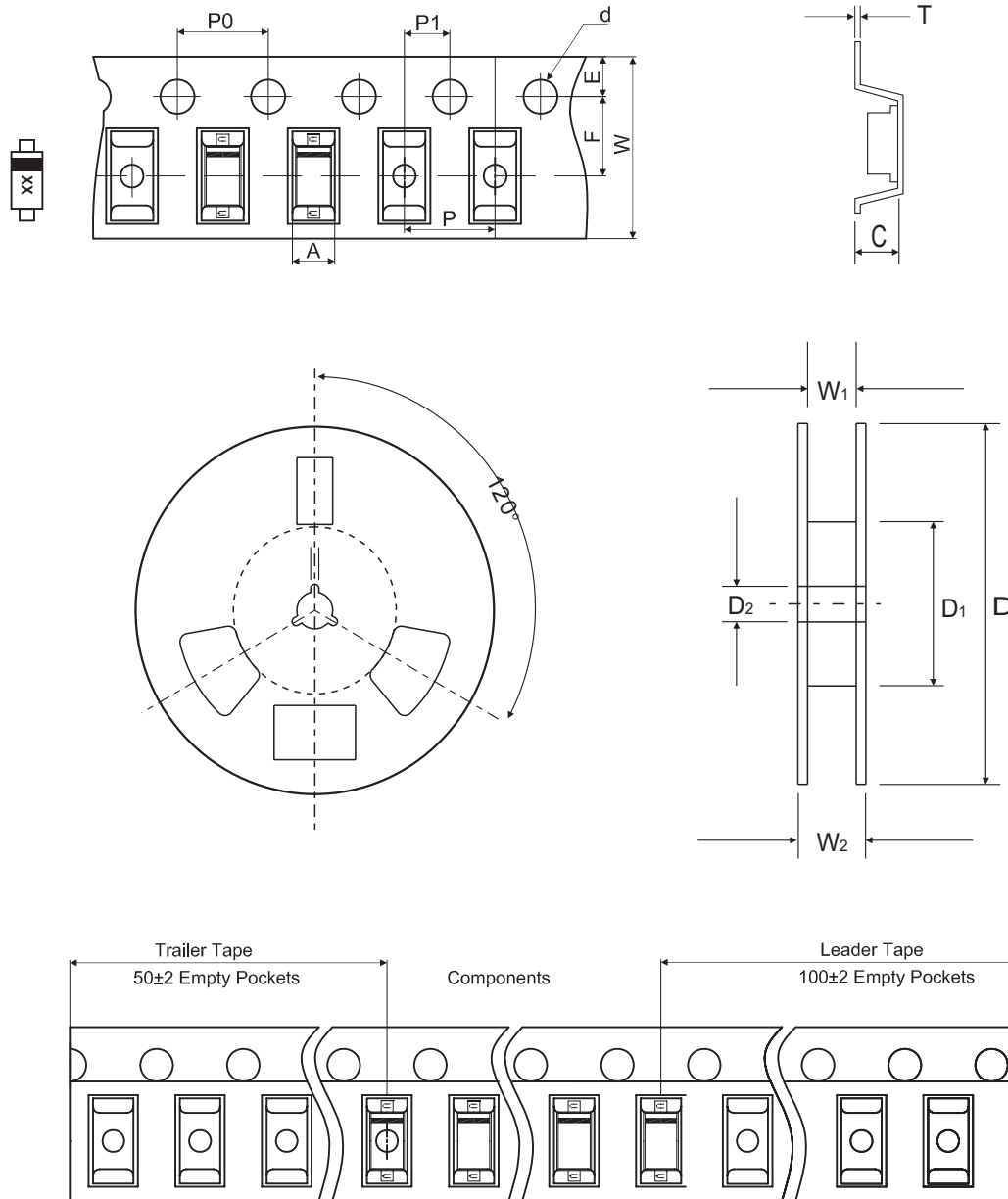
Fig.3 - Typical Capacitance Characteristics



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 <sub>1</sub>	D <sub>2</sub>
	(mm)	See Note 1			1.55 ± 0.05	0.60 Max.	178.00 Max.	50.00 Min.	13.00 ± 0.50
	(inch)	See Note 1			0.061 ± 0.002	0.024 Max.	7.000 Max.	1.969 Min.	0.512 ± 0.020

SOD-123	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>	W <sub>2</sub>
	(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 <sup>+1.50</sup> <sub>-0.00</sub>	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 <sup>+0.059</sup> <sub>-0.000</sub>	0.429 Max.

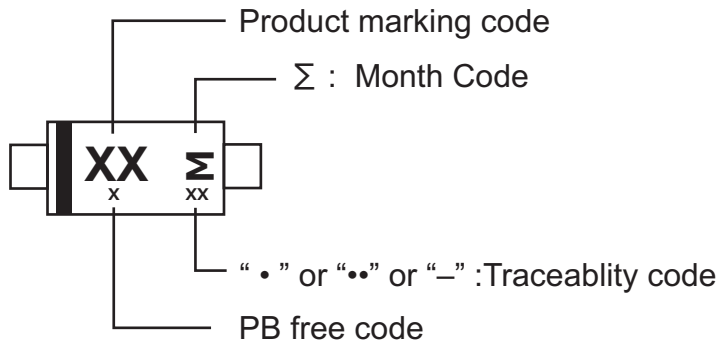
Notes: 1. A, B, and C are determined by component size. The clearance between the components and the cavity must be within 0.05mm min. to 0.50mm max.

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

REV: A

## Marking Code

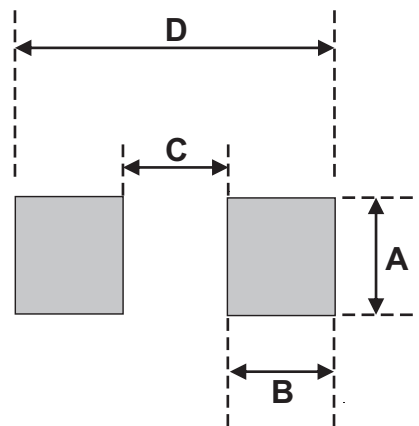
Part Number	Marking Code
ACDSW4448-HF	T4



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

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

REV: A