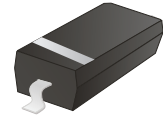


## ACDSW4448A-HF

**Reverse Voltage: 75 V**  
**Forward Current: 250mA**  
**RoHS Device**  
**Halogen Free**

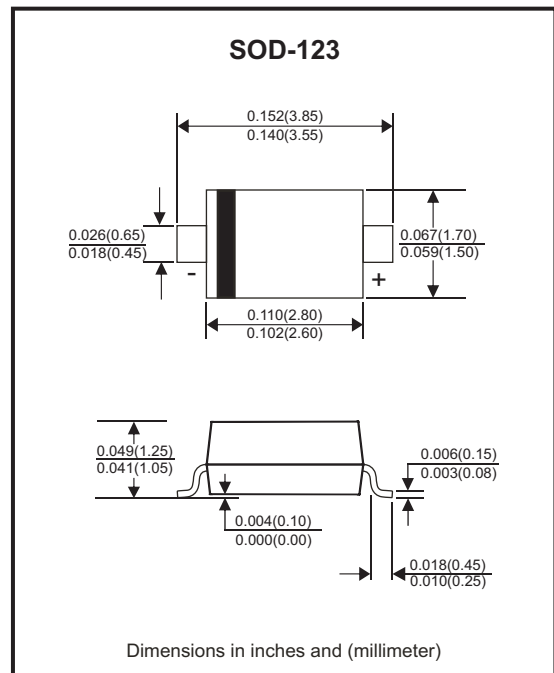


### Features

- 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	250	mA
Forward continuous current	IFM	500	mA
Non-Repetitive peak forward surge current @t=8.3ms	IFSM	2.0	A
Power dissipation	PD	500	mW
Thermal resistance from junction to ambient	RθJA	250	°C/W
Junction and Storage temperature range	TJ, TSTG	-55~+150	°C

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

Parameter	Conditions	Symbol	Min	Max	Unit
Forward voltage	$I_F = 5 \text{ mA}$	$V_F$	0.62	0.72	V
	$I_F = 10 \text{ mA}$			0.855	
	$I_F = 100 \text{ mA}$			1.0	
	$I_F = 150 \text{ mA}$			1.25	
Reverse current	$V_R = 75 \text{ V}$	$I_R$		2.5	$\mu\text{A}$
	$V_R = 20 \text{ V}$			25	nA
Capacitance between terminals	$f = 1 \text{ MHz}, V_R = 0 \text{ V}$	$C_T$		4	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

### Typical Characteristics (ACDSW4448A-HF)

Fig.1 - Typical Forward Characteristics

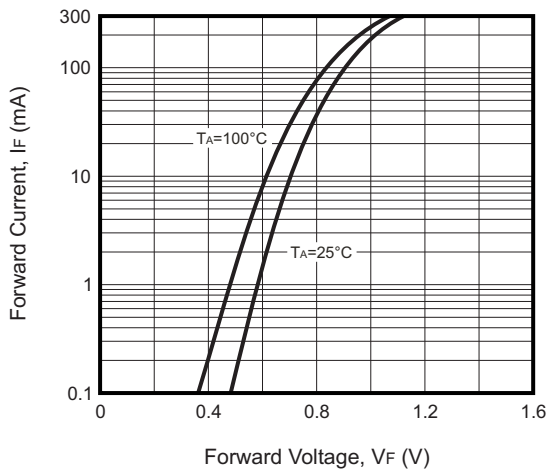


Fig.2 - Typical Reverse Characteristics

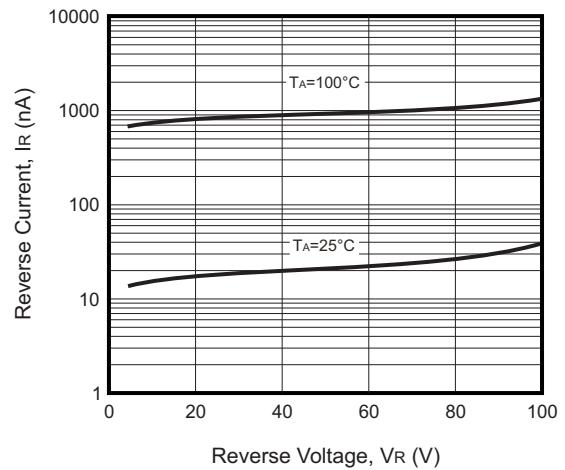


Fig.3 - Typical Capacitance Characteristics

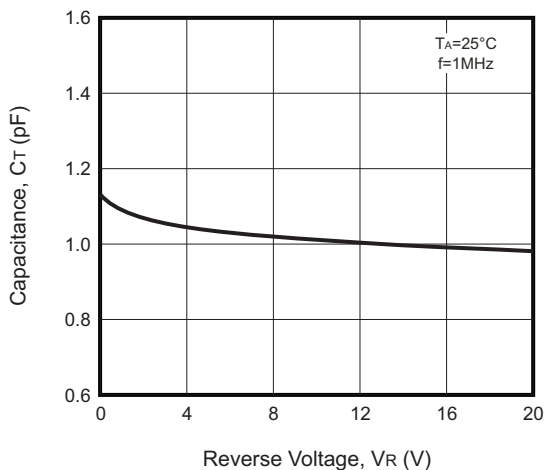
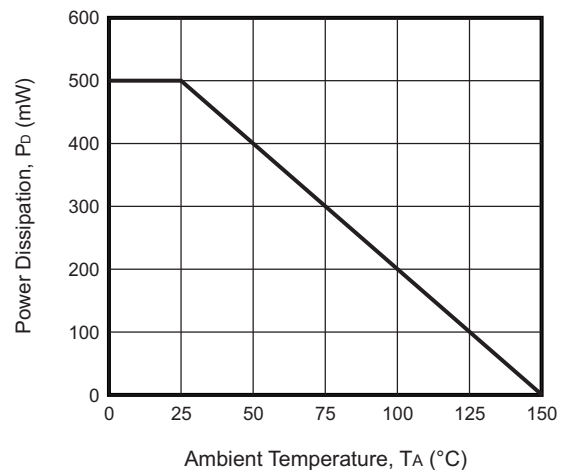


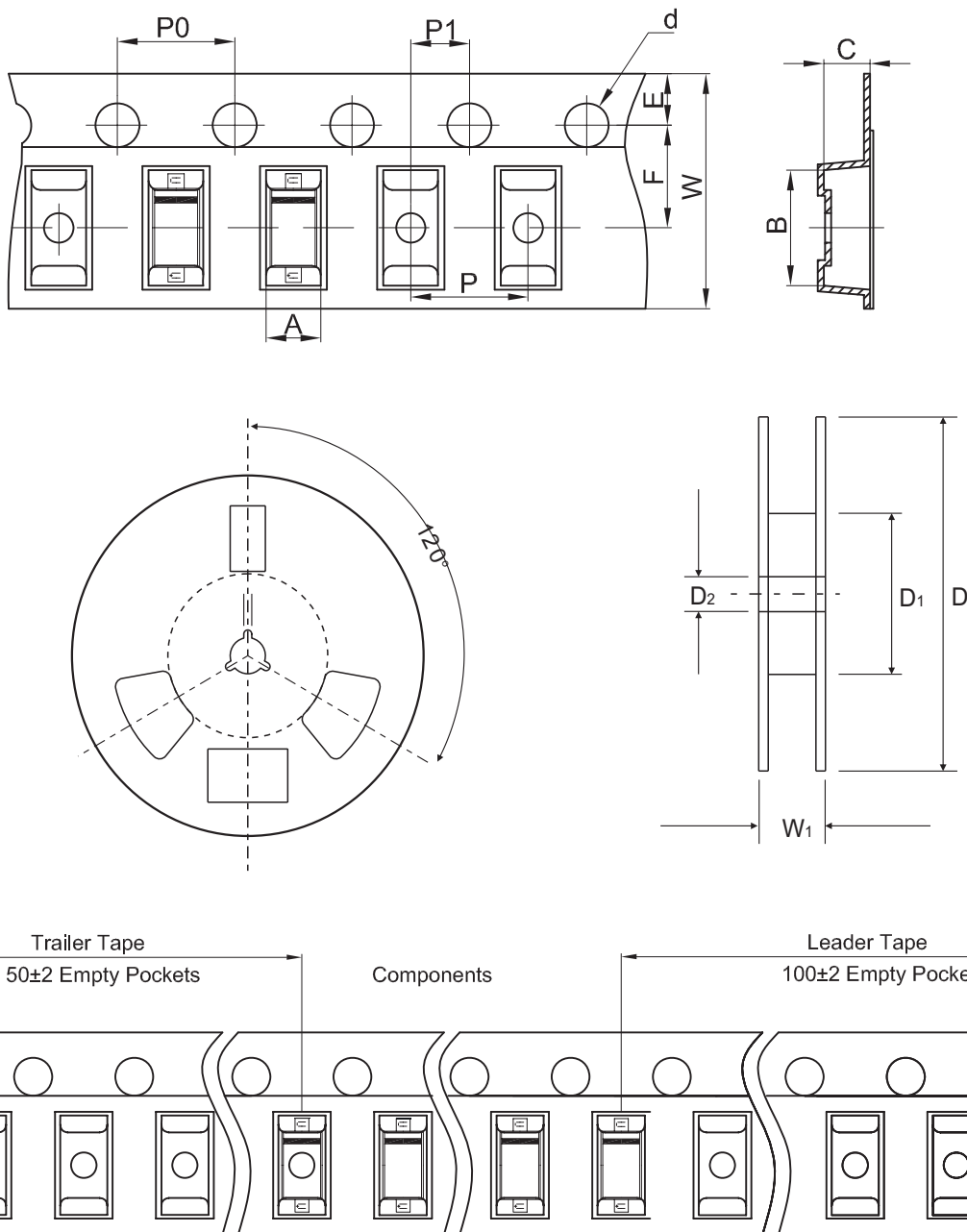
Fig.4 - Power Derating Curve



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	D	D <sub>1</sub>	D <sub>2</sub>
	(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	P <sub>1</sub>	P <sub>0</sub>	W	W <sub>1</sub>
	(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

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

REV: A

## Marking Code

Part Number	Marking Code
ACDSW4448A-HF	T5

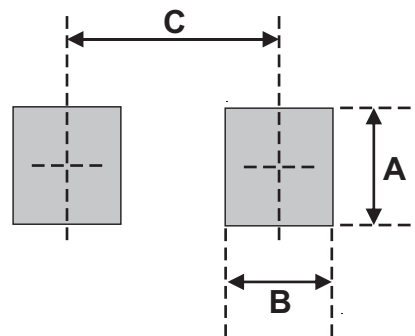


The marking bar indicates the cathode

Solid dot “•” = Halogen Free

## Suggested PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	1.00	0.039
B	0.80	0.031
C	3.24	0.128



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