

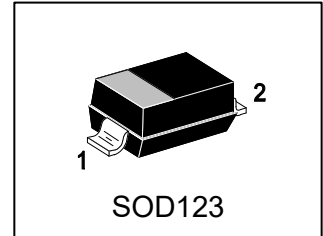
1N4148W

S-1N4148W

SURFACE MOUNT SWITCHING DIODE

1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.
- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications
- High conductance



2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
1N4148W	T4	3000/Tape&Reel

3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak Reverse Voltage	VRM	100	V
Peak Repetitive Reverse Voltage	VRRM	75	V
Working Peak Reverse Voltage	VRWM		
DC Reverse Voltage	VR		
RMS Reverse Voltage	VR(RMS)	53	V
Repetitive Peak Forward Current	IFM	500	mA
Average Rectified Output Current	IO	200	mA
Non-Repetitive Peak Forward Surge Current	IFSM		A
t=1μs		2	
t=1s		1	

4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Power Dissipation (Note 1)	PD	425	mW
Thermal Resistance	RθJA	290	°C/W
	RθJC	200	°C/W
Junction and Storage temperature	TJ, Tstg	-65 ~ +150	°C

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

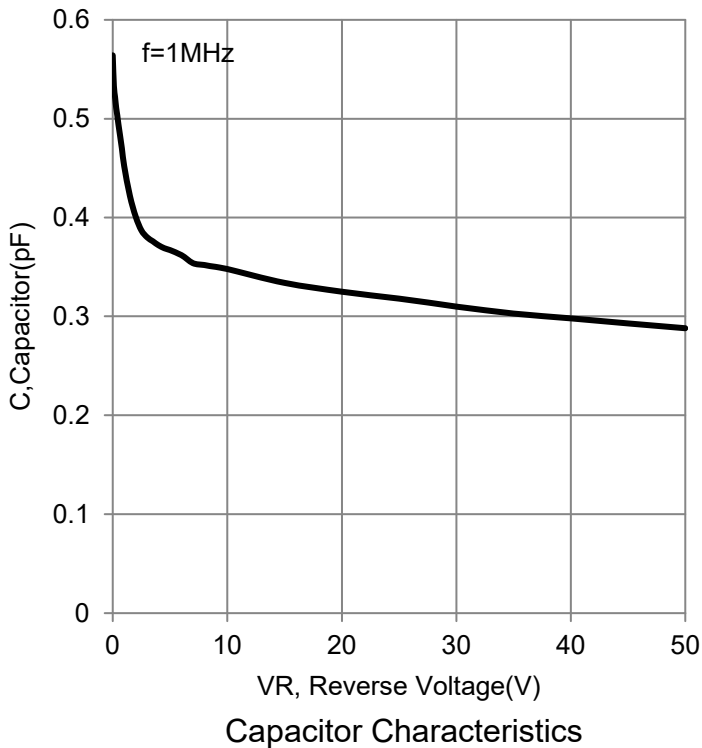
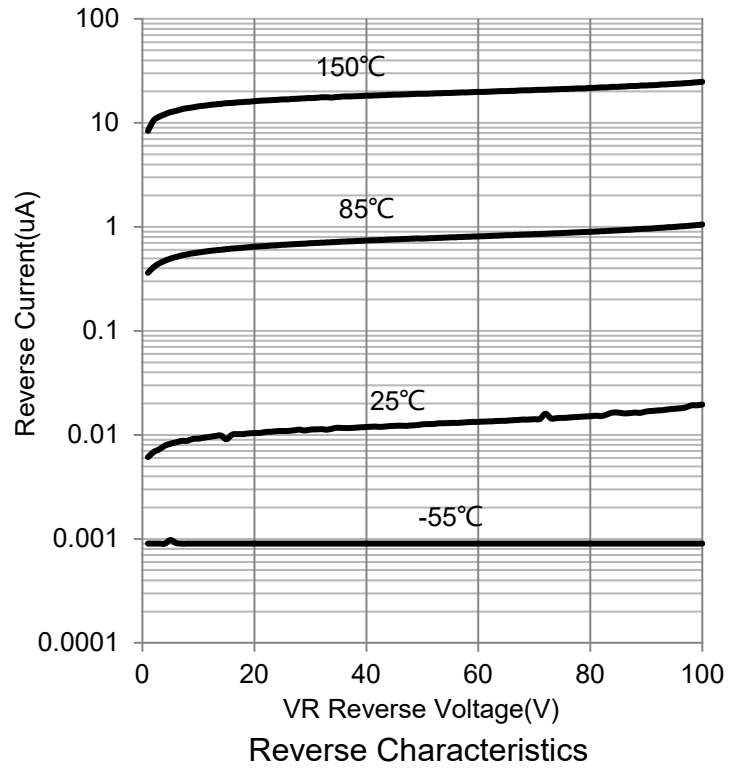
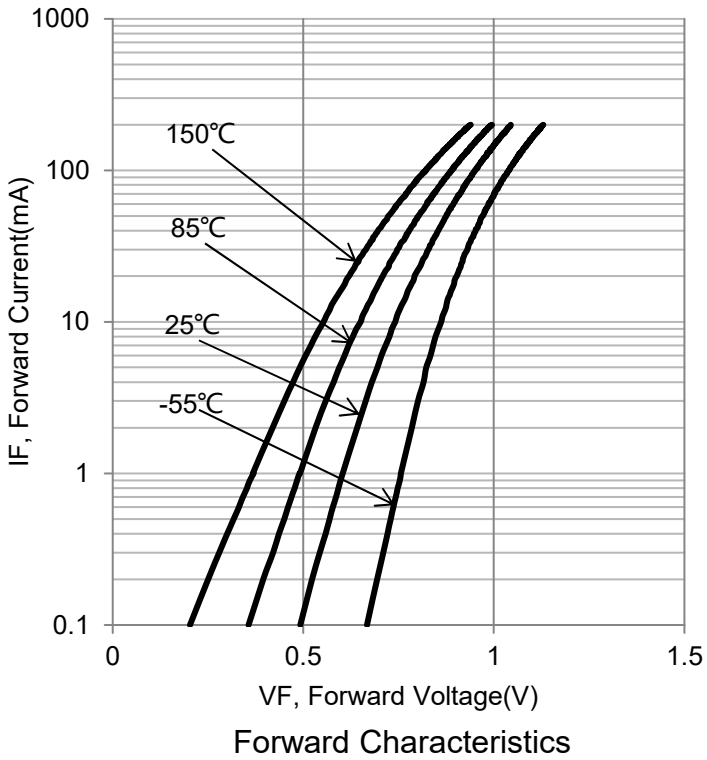


5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage (I(BR)=100μA)	VBR	75	-	-	V
Forward Voltage (IF = 1.0 mA _{dc}) (IF = 10 mA _{dc}) (IF = 50 mA _{dc}) (IF = 150 mA _{dc})	VF	-	-	715 855 1000 1250	mV
Reverse Voltage Leakage Current (VR = 75V _{dc}) (VR = 75V _{dc} , TJ = 150°C) (VR = 25V _{dc} , TJ = 150°C) (VR = 20V _{dc})	IR	-	-	2.5 50 30 0.025	μA
Diode Capacitance (VR = 0V, f = 1.0 MHz)	CD	-	-	2.0	pF
Reverse Recovery Time (IF=IR=10mA _d , I _{rr} =0.1×IR, RL =100`)	trr	-	-	4.0	ns



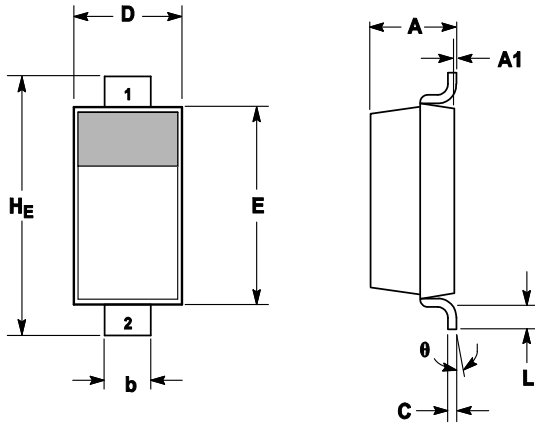
6. ELECTRICAL CHARACTERISTICS CURVES



7. OUTLINE AND DIMENSIONS

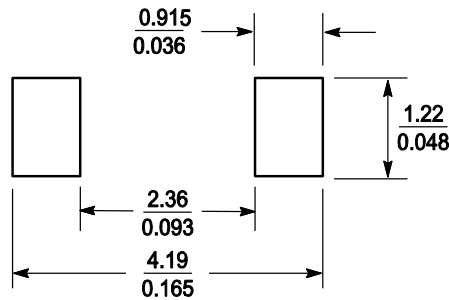
Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.94	1.17	1.35	0.037	0.046	0.053
A1	0.00	0.05	0.10	0.000	0.002	0.004
b	0.51	0.61	0.71	0.020	0.024	0.028
c	---	---	0.15	---	---	0.006
D	1.40	1.60	1.80	0.055	0.063	0.071
E	2.54	2.69	2.84	0.100	0.106	0.112
HE	3.56	3.68	3.86	0.140	0.145	0.152
L	0.25	---	---	0.010	---	---
theta	0°	---	10°	0°	---	10°

8. SOLDERING FOOTPRINT



SCALE 10:1 (mm / inches)

