

FEATURES AND BENEFITS

Product Summary		
I_O	150 mA	@25 °C
V_F	0.855V	@10mA
V_{RRM}	100V	@25 °C

SOD-123



Cathode  Anode

- For General Purpose Switching Applications
- High Conductance
- RoHS Compliant / Green EMC UL Flammability Classification Rating 94V-0
- Matte Tin (Sn) Lead finish Solderable per MIL-STD-202, Method 208
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.01 grams (Approximate)

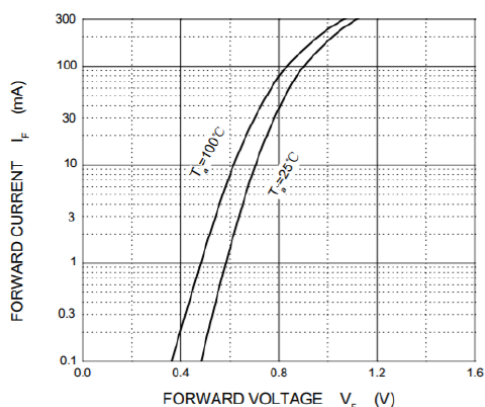
Maximum Ratings (TA = 25 °C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Non-Repetitive Peak Reverse Voltage	V_{RSM}	100	V
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	75	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current (@t=1.0us)	I_{FSM}	2.0	A
Power Dissipation	P_{TM}	350	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

THERMAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Thermal Resistance from Junction to Ambient*	$R_{\theta JA}$	357	°C/W

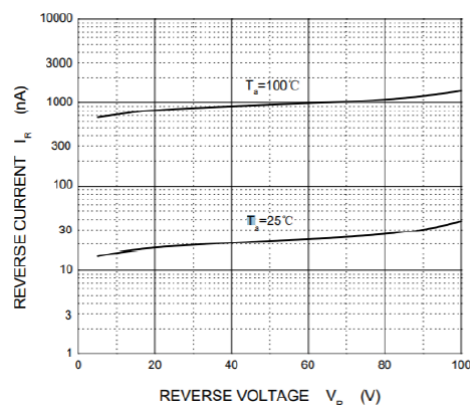
* Device mounted on 1"x1" FR4 PCB

ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)					
PARAMETER	SYMBOL	CONDITION	MIN	MAX	UNIT
Forward Voltage	V _F	I _F = 1mA		0.715	V
		I _F = 10mA		0.855	
		I _F = 50mA		1.0	
		I _F = 150mA		1.25	
Reverse Current	I _R	V _R = 75V (25°C)		1.0	μA
		V _R = 20V (25°C)		25	nA
		V _R = 75V (150°C)		50	μA
Capacitance	C _T	V _R = 0V, f = 1MHz		2.0	pF
Reverse Recovery Time	t _{rr}	I _F = 10mA, I _R = 10mA, I _{rr} = 1mA, R _L =100ohm		4.0	ns

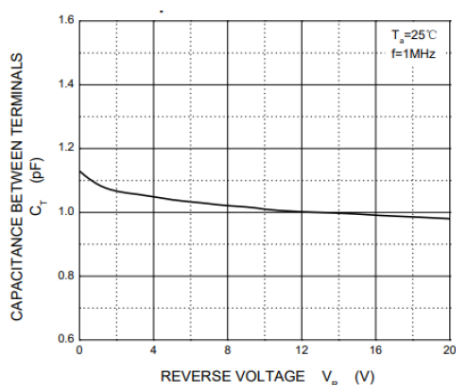
RATING AND CHARACTERISTICS CURVES



Forward current (I_F) vs Forward voltage (V_F)



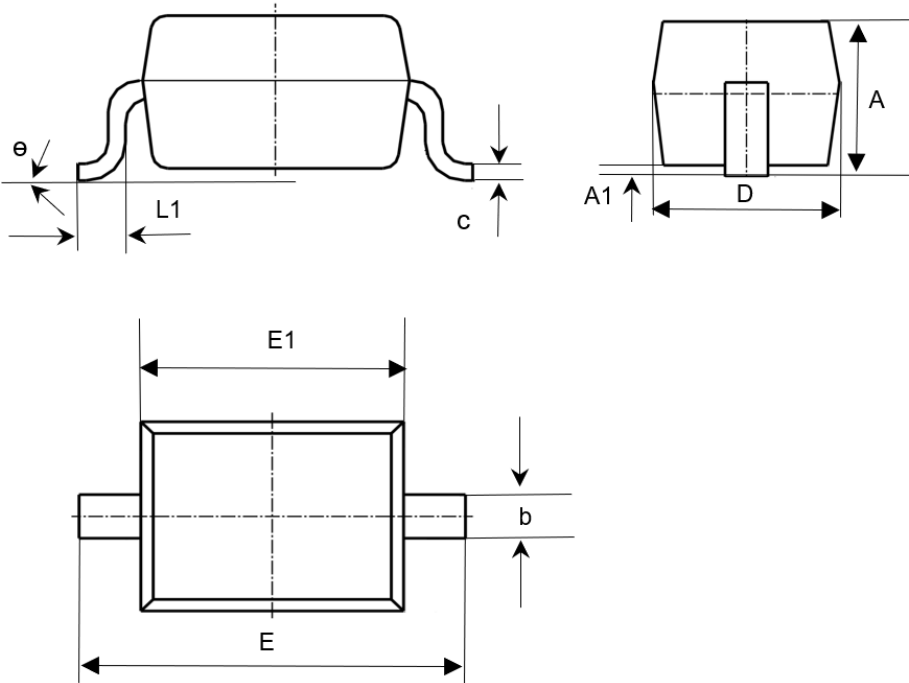
Reverse current (I_R) vs Reverse voltage (V_R)



Capacitance Characteristics

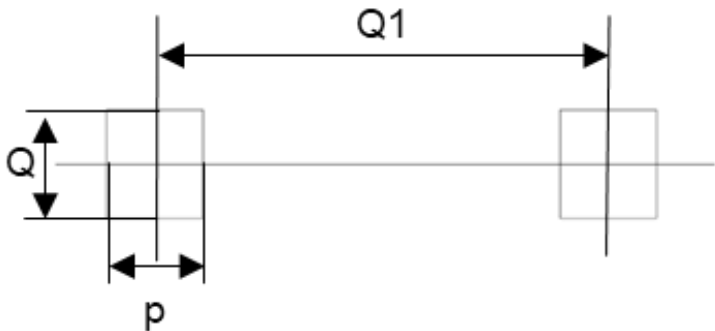
PACKAGE OUTLINE DIMENSIONS

SOD-123



Symbol	MIN	MAX
A	1.05	1.25
A1	0.00	0.10
b	0.45	0.65
c	0.08	0.15
D	1.50	1.70
E	3.55	3.85
E1	2.60	2.80
L1	0.25	0.45
θ	0°	8°
Unit: mm		

SUGGESTED PAD LAYOUT



Symbol	Typ
Q1	3.24
Q	1.0
p	0.8
Unit: mm	

DEVICE MARKING AND ORDERING INFORMATION

DEVICE	Marking	Quantity	Packing
1N4148W	T4	3000/Reel	Tape & Reel

NOTICE:

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