

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

SOD-123



MECHANICAL DATA

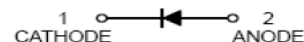
- Case: SOD-123, Plastic
- Epoxy: UL 94V-0 Rate Flame Retardant
- Metallurgically Bonded Construction
- Polarity: Color Band Denotes Cathode End

MARKING

T4

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123	3K	7 inch



ORDER INFORMATION

Part Number	Type
1N4148W-C	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

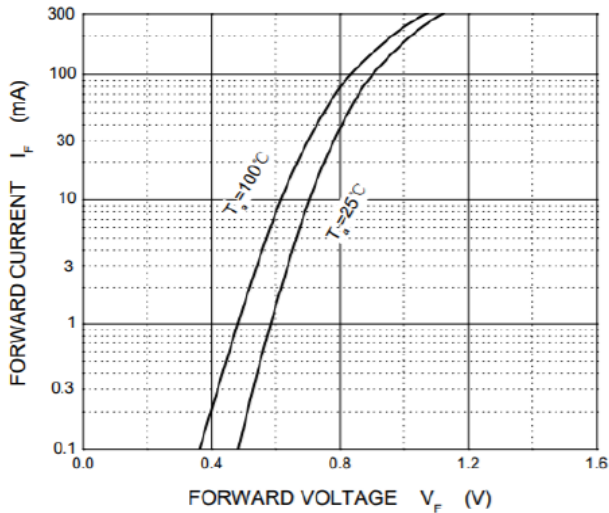
Parameter	Symbol	Rating	Unit
Non-Repetitive Peak Reverse Voltage	V _R	100	V
Peak Repetitive Reverse Voltage	V _R RM	75	V
Working Peak Reverse Voltage	V _R WM		
DC Blocking Voltage	V _{DC}		
RMS Reverse Voltage	V _R MS	53	V
Repetitive Peak Forward Current	I _F	300	mA
Average Rectified Output Current	I _O	150	mA
Non-Repetitive Peak Forward Surge Current @t=1μs	I _{FSM}	2	A
Repetitive Peak Forward Current @Duty 50%, tp=25μs	I _{FRM}	500	mA
Power Dissipation	P _D	350	mW
Thermal Resistance Junction-Ambient	R _{θJA}	357	°C/W
Operating Junction & Storage Temperature Range	T _J , T _{STG}	-55~150	°C

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

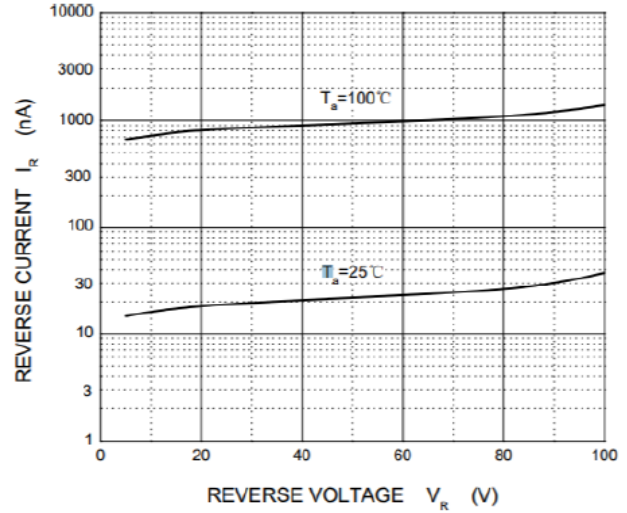
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Reverse Breakdown Voltage	V_{RM}	75	-	-	V	$I_R=1\mu\text{A}$
Forward Voltage	V_F	-	-	0.715	V	$I_F=1\text{mA}$
		-	-	0.855		$I_F=10\text{mA}$
		-	-	1		$I_F=50\text{mA}$
		-	-	1.25		$I_F=150\text{mA}$
Peak Reverse Leakage Current	I_R	-	-	1	μA	$V_R=75\text{V}$
		-	-	50		$V_R=75\text{V}, T_J=150^\circ\text{C}$
		-	-	25	nA	$V_R=20\text{V}$
Junction Capacitance	C_J	-	2	-	pF	$V_R=0\text{V}, f=1\text{MHz}$
Reverse Recovery Time	T_{RR}	-	4	-	nS	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$

CHARACTERISTIC CURVES

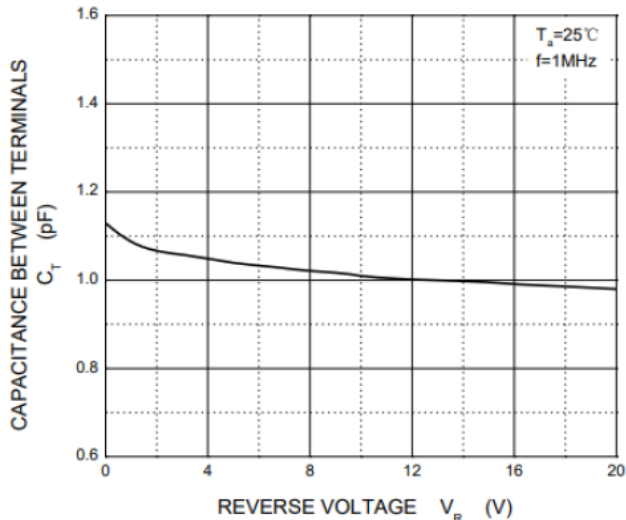
Forward current(I_F) vs Forward voltage(V_F)



Reverse current(I_R) vs Reverse voltage(V_R)

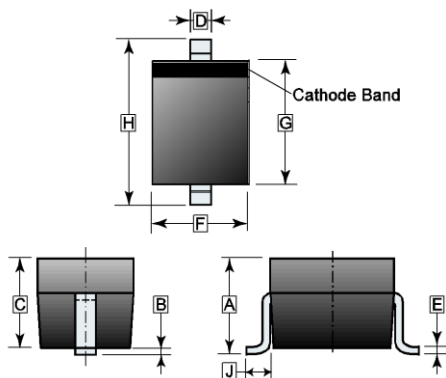


Capacitance Characteristics



PACKAGE OUTLINE DIMENSIONS

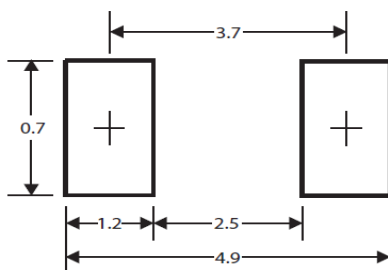
SOD-123



REF.	Millimeter	
	Min.	Max.
A	1.15 REF.	
B	0.10 REF.	
C	1.00	1.30
D	0.30	0.78
E	0.05	0.25
F	1.45	1.80
G	2.55	2.90
H	3.10	3.85
J	0.50 REF.	

MOUNTING PAD LAYOUT

SOD-123



*Dimensions in millimeters