

Silicon Epitaxial Planar Diode

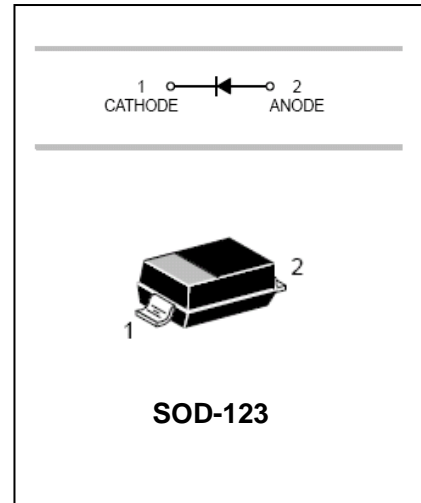
1N4148W

FEATURES

- Fast Switching Speed: $t_{rr}=4ns$ (Typ)
- Surface Mount Package Ideally Suited For Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- Available in Lead Free Version



Lead-free



APPLICATIONS

- Surface mount fast switching diode

ORDERING INFORMATION

Type No.	Marking	Package Code
1N4148W	T4	SOD-123

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Reverse Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_o	150	mA
Non-Repetitive Peak Forward Surge Current @t=1.0 μs	I_{FSM}	2.0	A
@t=1.0 s		1.0	
Power Dissipation	P_d	400	mW
Thermal Resistance Junction to Ambient Air	$R_{θJA}$	315	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to+150	°C

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	75	-	V	$I_R=1.0\mu A$
Forward Voltage	V_F	0.62	0.72 0.855 1.0 1.25	V	$I_F=5mA$ $I_F=10mA$ $I_F=100mA$ $I_F=150mA$
Reverse Current	I_R	-	1 25	μA nA	$V_R=75V$ $V_R=20V$
Capacitance between terminals	C_T	-	2.0	pF	$V_R=0, f=1.0MHz$
Reverse Recovery Time	t_{rr}	-	4.0	ns	$I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

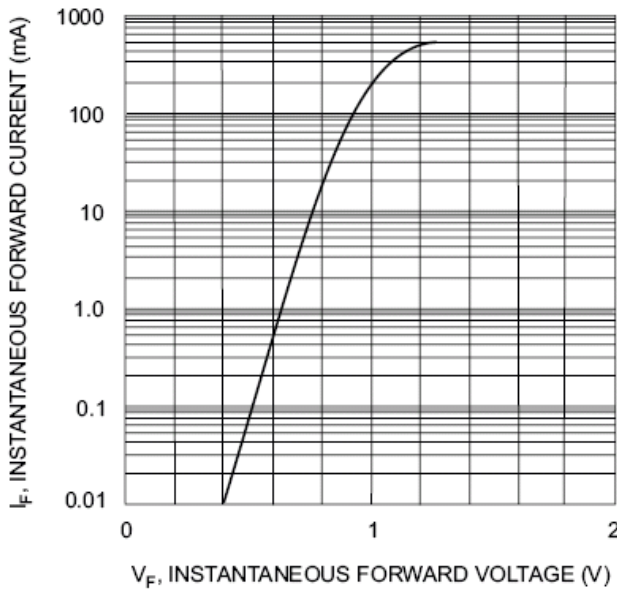


Fig. 1 Forward Characteristics

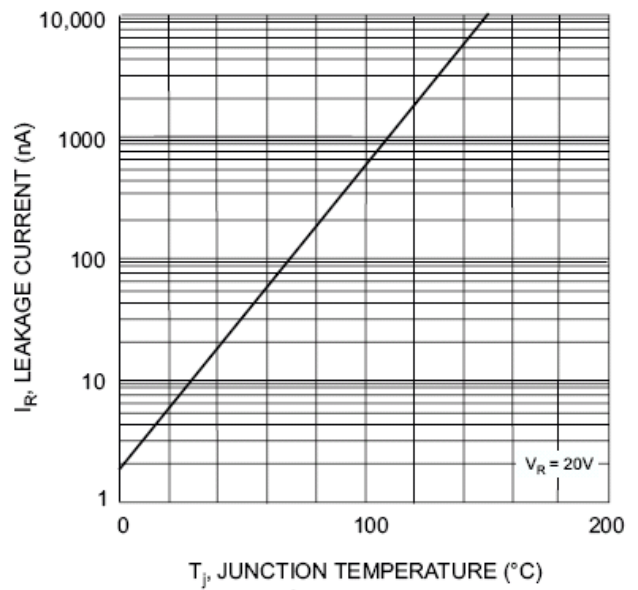


Fig. 2 Leakage Current vs Junction Temperature

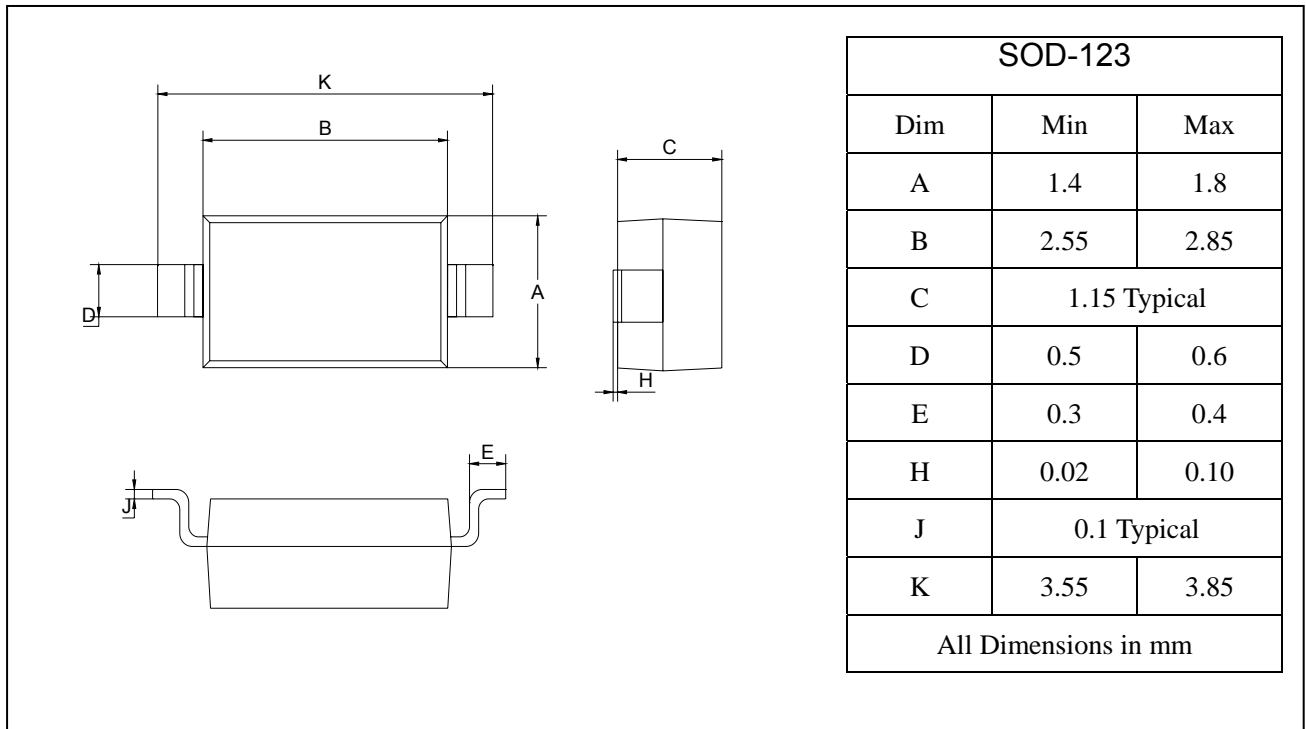
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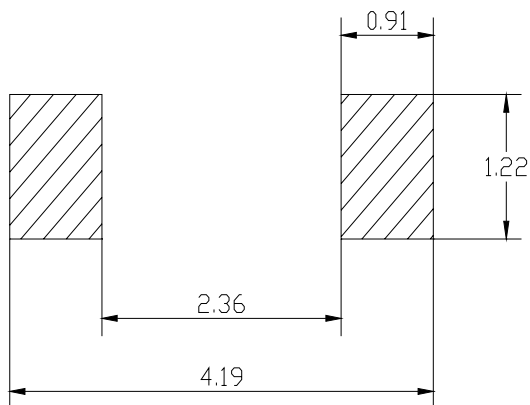
PACKAGE OUTLINE

Plastic surface mounted package

SOD-123



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
1N4148W	SOD-123	3000/Tape&Reel