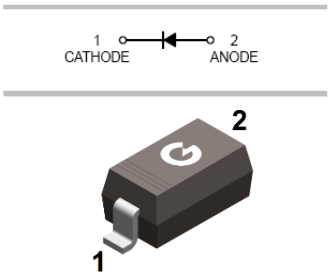
Small Signal Fast Switching Diode
1N4150W

Features

HF

- Silicon epitaxial planar diode
- For general purpose switching applications



SOD-123

Mechanical Data

- Case: SOD-123
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
1N4150W	SOD-123	3000 pcs / Tape & Reel	50W

Maximum Ratings (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	50	V
Working Peak Reverse Voltage	V_{RWM}	50	V
DC Blocking Voltage	V_R	50	V
Average Rectified Output Current	I_F	200	mA
Non-repetitive Peak Forward Surge Current, t = 1ms	I_{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	500	mW
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	250	°C/W
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	180	°C/W
Thermal Resistance Junction-to-Lead *1	$R_{\theta JL}$	200	°C/W
Operating Junction Temperature Range	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

Note 1: The data tested by surface mounted on a 1 inch^2 FR-4 board with 2OZ copper

Electrical Characteristics (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R = 100μA	50	-	-	V
Forward Voltage	V_F	I_F = 200mA	-	-	1	V
Maximum Peak Reverse Current	I_R	V_R = 50V	-	-	0.1	μA
Total Capacitance	C_J	V_R = 0, f = 1.0MHz	-	-	4	pF
Reverse Recovery Time	t_{rr}	I_F = I_R = 10mA, I_{rr} = 0.1×I_R, R_L = 100Ω	-	-	4	ns

Ratings and Characteristic Curves (@ T_A = 25°C unless otherwise specified)

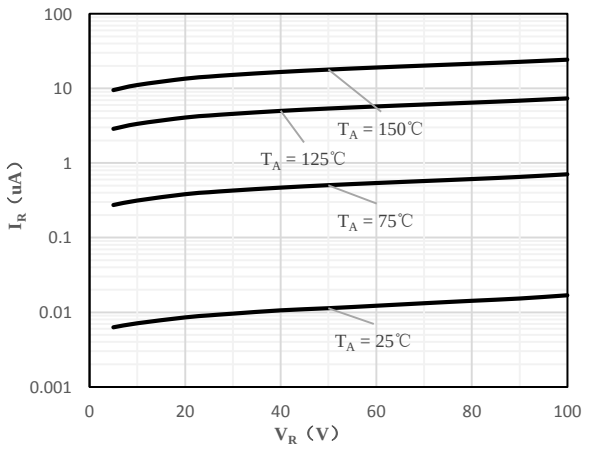


Fig 1 Typical Reverse Characteristic

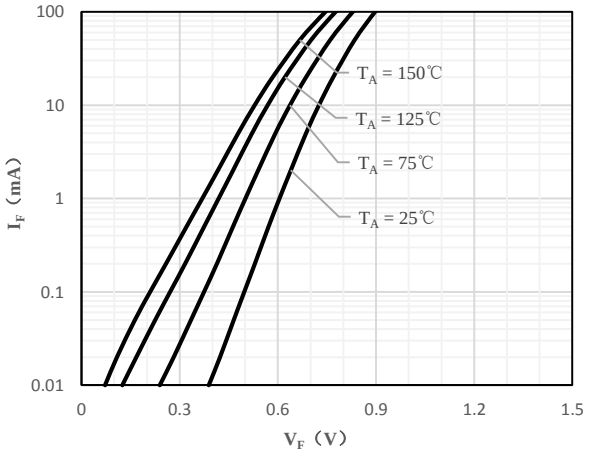


Fig 2 Typical Forward Characteristics

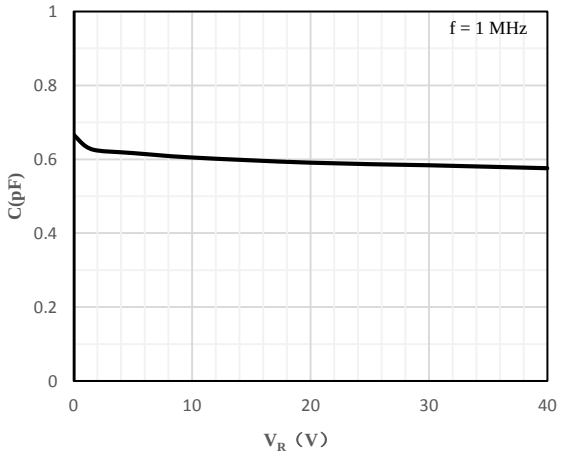
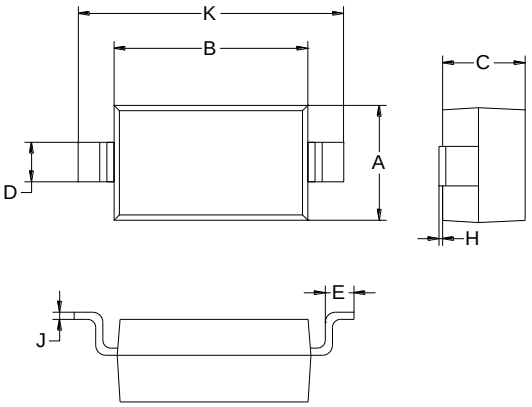


Fig 3 Capacitance vs. Reverse Voltage

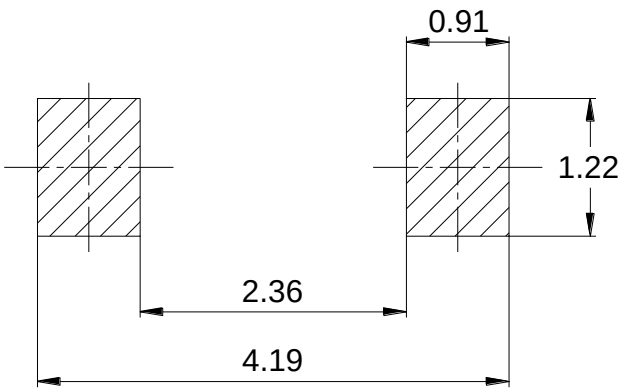
Package Outline Dimensions (Unit: mm)



SOD-123		
Dimension	**Min.**	**Max.**
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85

Package Outline Dimensions (Unit: mm)

SOD-123



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