
■ FEATURES

- V_R 75V
- I_{FAV} 150mA

■ TYPICAL APPLICATIONS

- Extreme fast switches

■ MECHANICAL DATA

- **Package:** SOD123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** T4

■ MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	V_{RRM}	V		100
Reverse voltage	V_R	V		75
Peak forward surge current	I_{FSM}	A	Pulse width=1 us Pulse width=1 s	2 0.5
Repetitive peak forward current	I_{FRM}	mA		300
Average forward current	I_{FAV}	mA		150
Power dissipation	P_D	mW		400
Maximum junction temperature	T_j	$^\circ\text{C}$		-55 ~+150
Storage temperature range	T_{stg}	$^\circ\text{C}$		-55 ~+150
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	$^\circ\text{C/W}$		315

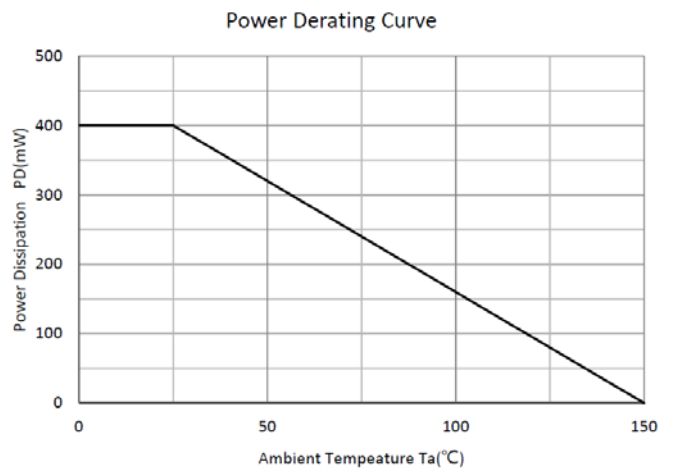
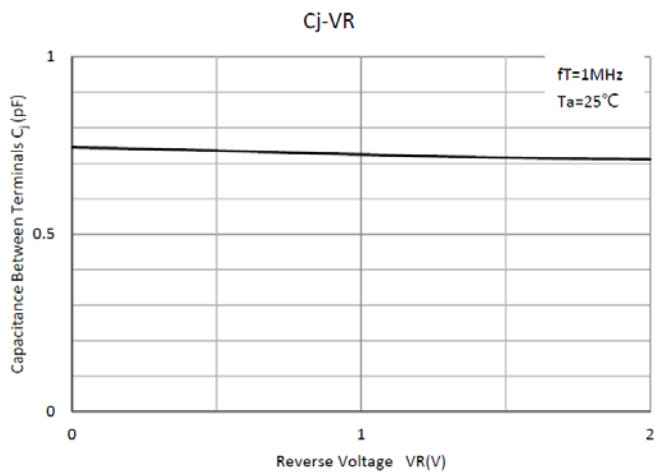
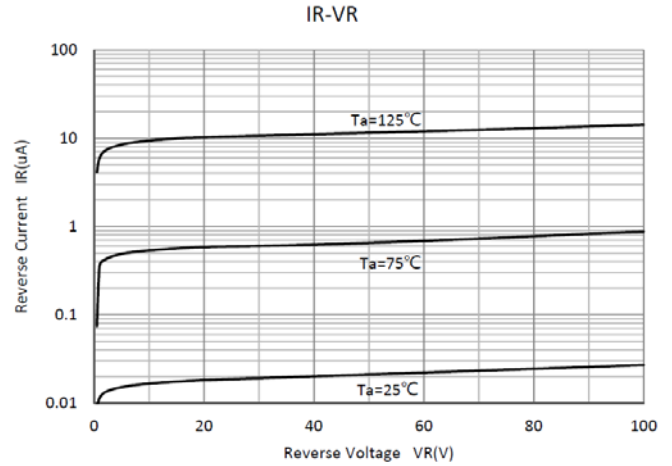
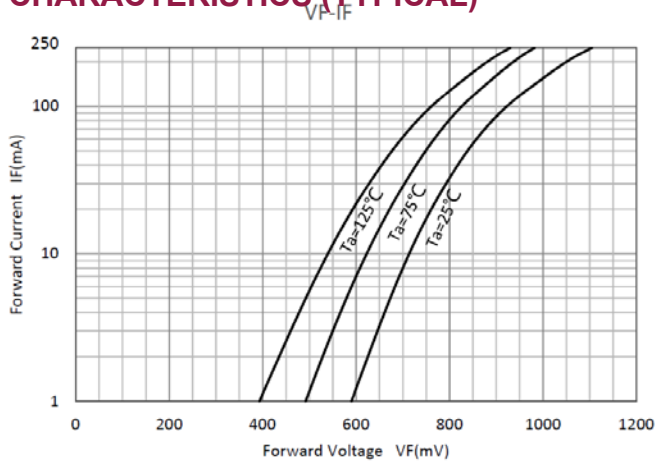
■ ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Max
Breakdown Voltage	V_R	V	$I_R=10\mu\text{A}$	100	
Forward Voltage	V_F	V	$I_F=10\text{mA}$ $I_F=100\text{mA}$		1.00 1.25
Reverse Leakage Current	I_{R1}	nA	$V_R=20\text{V}$		25
	I_{R2}	μA	$V_R=75\text{V}$		1
Capacitance	C	pF	$V_R=0\text{V}, f=1\text{MHz}$		4
Reverse Recovery Time	T_{RR}	ns	$I_F=10\text{mA}, V_R=6\text{V}, I_{RR}=1\text{mA}, R_L=100\Omega$		4

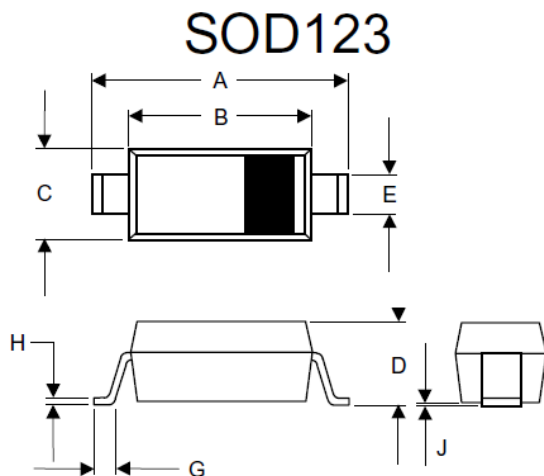
■ PACKAGING INFORMATION

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1N4148W	F2	Approximate 0.011	3000	30000	120000	7" reel

■ **CHARACTERISTICS (TYPICAL)**

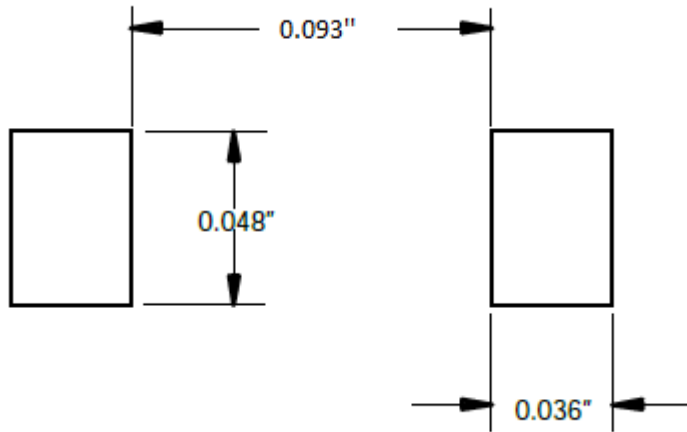


■ **SOD-123 OUTLINE DIMENSIONS**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	----	.053	----	1.35	
E	.012	.031	0.30	.78	
G	.006	----	0.15	----	
H	----	.01	----	.25	
J	----	.006	----	.15	

■ **SOD-123 SOLDERING FOOTPRINT**



Unit: inch