1N4148W

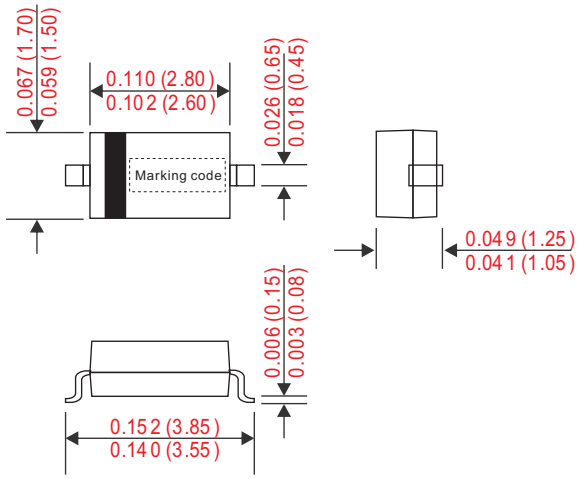
150mA Surface Mount Switching Diodes

■ Features

- Fast switching speed.
- Electrically identical to standard JEDEC.
- Surface mount package ideally suited for automatic insertion.
- Tiny plastic SMD package.
- Silicon epitaxial planar chip.
- Suffix "G" indicates Halogen-free part, ex.1N4148WG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Outline

SOD-123



Dimensions in inches and (millimeters)

■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.0004 ounce, 0.010 gram

■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter		Symbol	1N4148W	UNIT
Marking code			A2, T4	
Reverse voltage nop-reptitive peak		V_{RM}	100	V
Peak repetitive reverse voltage		V_{RRM}	75	
Working peak reverse voltage		V_{RWM}	75	
DC blocking voltage		V_R	75	V
RMS reverse voltage		$V_{R(RMS)}$	50	V
Forward continuous current		I_{FM}	300	mA
Non-repetitive peak forward surge current	@t = 1.0us @t = 1.0s	I_{FSM}	2.0 1.0	A
Average recfified output current		I_O	150	mA
Total device dissipation		P_D	400	mW
Termal resistance junction to ambient air		$R_{\theta JA}$	315	K/W
Junction and storage temperature		T_J	+150	°C
storage temperature		T_{STG}	-55 ~ +150	°C
Forward voltage	I_F = 1.0mA I_F = 10mA I_F = 50mA I_F = 150mA	V_F	0.715 0.855 1.00 1.25	V
Reverse voltage leakage current	V_R = 75V V_R = 20V	I_R	1.0 25	uA nA
Diode Capacitance	V_R = 0V, f = 1.0MHz	C_T	4.0	pF
Reverse recover time	$I_F = I_R$ = 10mA, Irr = 0.1 x I_R, R_L = 100Ω	trr	4.0	ns

■ Rating and characteristic curves

Fig. 1 TYPICAL FORWARD CHARACTERISTICS

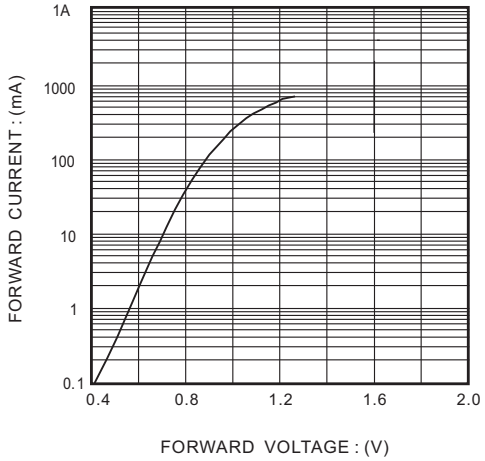


Fig. 2 TYPICAL REVERSE CHARACTERISTICS

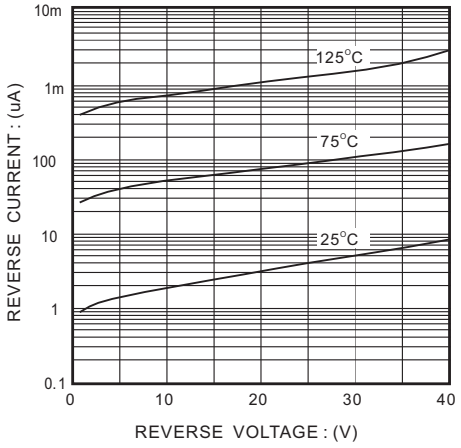
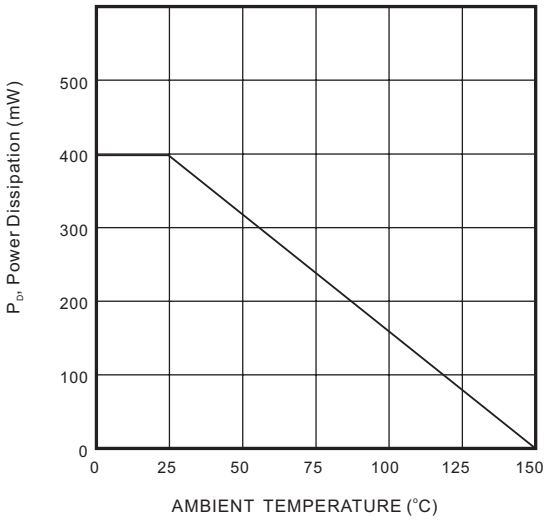
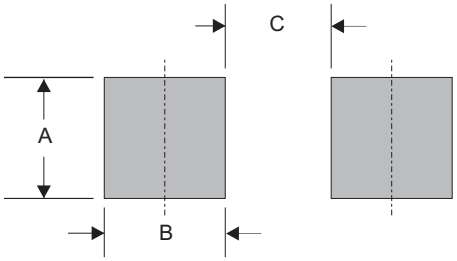


Fig. 3 POWER DERATING CURVE



■ SOD-123 foot print



A	B	C
0.059 (1.50)	0.059 (1.50)	0.094 (2.40)

Dimensions in inches and (millimeters)