

DATA SHEET

1N4148W

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100 V POWER 350 mW

FEATURES

- FAST SWITCHING SPEED
- FOR GENERAL PURPOSE SWITCHING APPLICATIONS
- HIGH CONDUCTANCE
- SURFACE MOUNT PACKAGE IDEALLY SUITED FOR AUTOMATIC INSERTION
- LEAD FREE AND HALOGEN-FREE

MECHANICAL DATA

- CASE: SOD-123 PLASTIC CASE
- TERMINALS: SOLDERABLE PER MIL-STD-202, METHOD208
- WEIGHT: APPROXIMATELY 0.01GRAMS



CASE: SOD-123

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	VALUE	UNITS
DC BLOCKING VOLTAGE	V_R	100	V
PEAK REPETITIVE PEAK REVERSE VOLTAGE	V_{RRM}		
WORKING PEAK REVERSE VOLTAGE	V_{RWM}		
RMS VOLTAGE	V_{RMS}	71	V
AVERAGE RECTIFIED OUTPUT CURRENT	I_O	150	mA
PEAK FORWARD SURGE CURRENT	I_{FSM}	$T = 1.0\mu s$	2
		$T = 1.0s$	1
MAXIMUM THERMAL RESISTANCE	$R_{\theta JA}$	357	°C/W
POWER DISSIPATION	P_D	350	mW
STORAGE TEMPERATURE RANGE	T_{STG}	- 65 TO + 150	°C
JUNCTION TEMPERATURE	T_J	150	°C

ELECTRICAL CHARACTERISTICS (AT $T_A = 25^\circ C$ UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	VALUE	UNITS
REVERSE BREAKDOWN VOLTAGE	V_{BR}	100	V
MAXIMUM FORWARD VOLTAGE	V_F	$I_F = 1\mu A$	0.715
		$I_F = 1mA$	0.855
		$I_F = 10mA$	1.0
		$I_F = 50mA$	1.25
		$I_F = 150mA$	1.25
MAXIMUM DC REVERSE CURRENT	I_R	$V_R = 20V$	25
		$V_R = 75V$	1.0
JUNCTION CAPACITANCE (NOTE.1)	C_J	2.0	pF
MAXIMUM REVERSE RECOVERY TIME (NOTE.2)	T_{RR}	4.0	nS

NOTE:

1. C_J AT $V_R = 0V$, $f = 1MHz$
2. FROM $I_F = I_R = 10mA$, $I_{rr} = 0.1 \times I_R$, $R_L = 100\Omega$

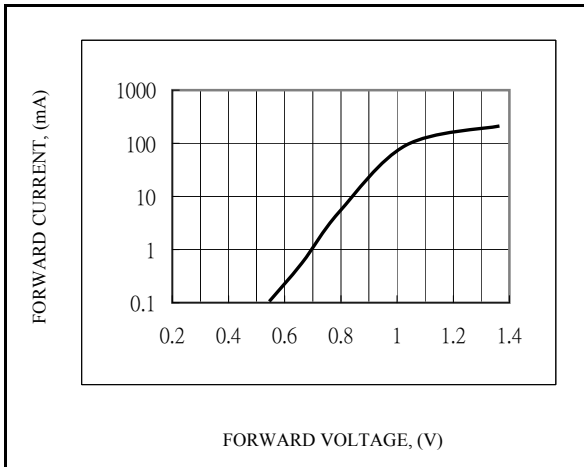


Fig.1-TYPICAL FORWARD CHARACTERISTIC

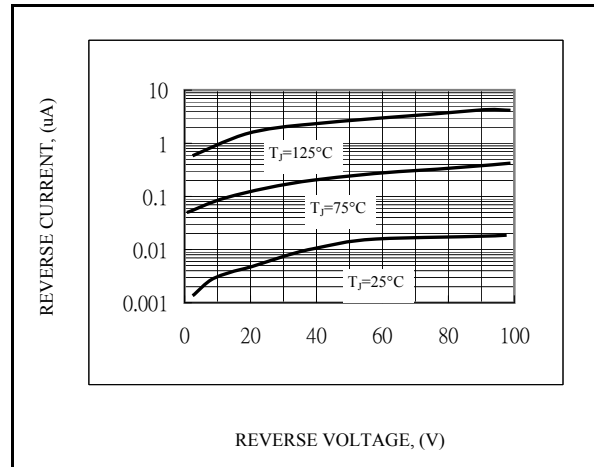


Fig.2-TYPICAL REVERSE CHARACTERISTICS

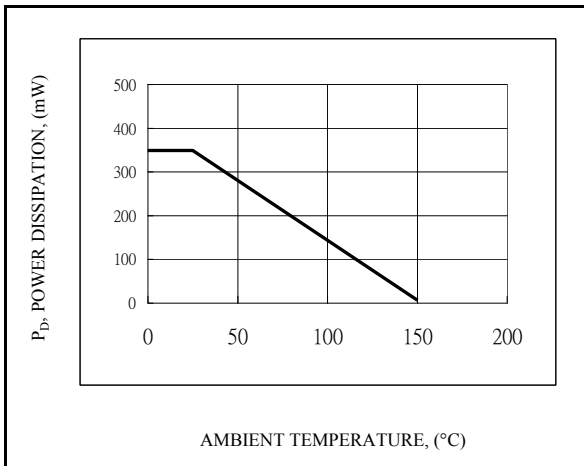


Fig.3-POWER DERATING CURVE

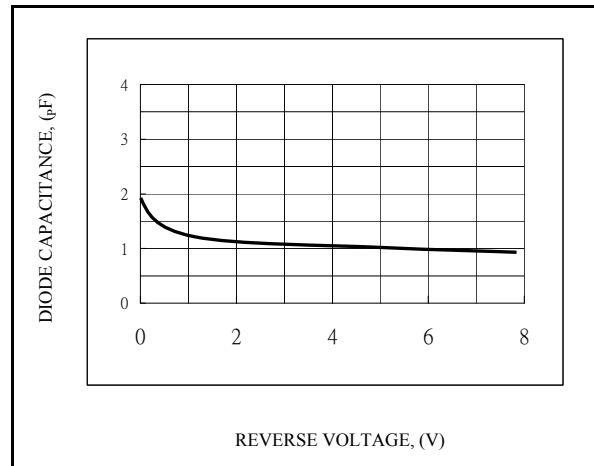
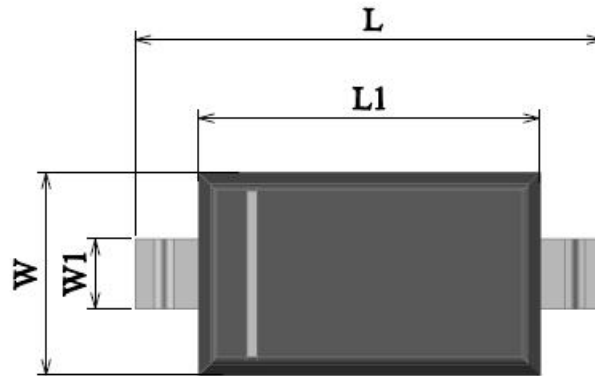


Fig.4-TYPICAL JUNCTION CAPACITANCE

SOD-123 DIMENSION



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
L	3.55	3.85	0.140	0.152
L1	2.60	2.80	0.102	0.110
W	1.50	1.70	0.059	0.067
W1	0.45	0.65	0.018	0.026
H	1.05	1.25	0.041	0.049
H1	0.55	0.75	0.022	0.030