DATA SHEET

1N4148WS

SURFACE MOUNT SWITCHING DIODES

VOLTAGE **75 Volts** **POWER** **200 mW**

FEATURES

- FAST SWITCHING SPEED
- SURFACE MOUNT PACKAGE IDEALLY SUITED FOR AUTOMATIC INSERTION
- ELECTRICALLY IDENTICAL TO STANDARD JEDEC
- HIGH CONDUCTANCE
- LEAD FREE AND HALOGEN-FREE

CASE: SOD-323

MECHANICAL DATA

- CASE: SOD-323
- TERMINAL: SOLDERABLE PER MIL-STD-220, METHOD 208
- APPROX WEIGHT: 0.0043 GRAMS

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.				
PARAMETER		SYMBOL	VALUE	UNITS
PEAK REPETITIVE PEAK REVERSE VOLTAGE		V_{RRM}	75	V
NON-REPETITIVE PEAK REVERSE VOLTAGE		V_{RM}	100	V
RMS REVERSE VOLAGE		V_{RMS}	53	V
FORWARD CONTINUOUNS CURRENT		I_{FM}	300	mA
AVERAGE RECTIFIED OUTPUT CURRENT		I_O	150	mA
PEAK FORWARD SURGE CURRENT AT	T =1.0μs	I_{FSM}	2	A
	T =1.0s		1	
THERMAL RESISTANCE JUNCTION TO AMBIENT		$R_{\theta JA}$	625	°C/W
POWER DISSIPATION		P_D	200	mW
STORAGE TEMPERATURE REANGE		T_{STG}	- 65 TO + 150	°C
OPERATING JUNCTION TEMPERATURE		T_J	125	°C
ELECTRICAL CHARACTERISTICS (AT T_A =25°C UNLESS OTHERWISE NOTED)				
PARAMETER		SYMBOL	VALUE	UNITS
MAXIMUM FORWARD VOLTAGE	I_F = 1mA	V_F	0.715	V
	I_F = 10mA		0.855	
	I_F = 50mA		1.0	
	I_F = 150mA		1.25	
MAXIMUM DC REVERSE CURRENT	V_R = 20V	I_R	25	nA
	V_R = 75V		1.0	μA
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 =10mA TO I_R =1mA, V_R= 6V, R_L=100Ω

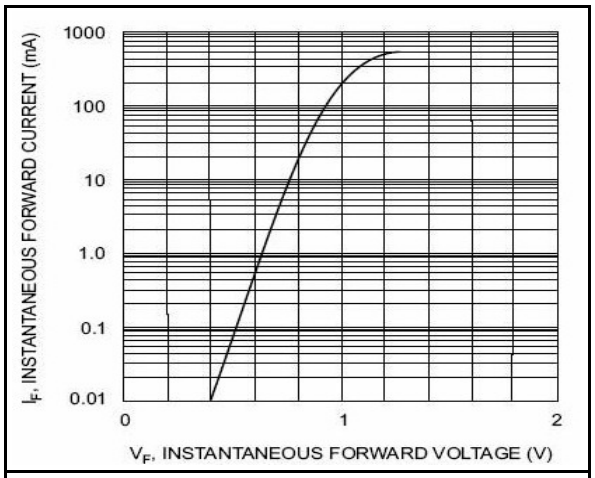


Fig.1-TYPICAL FORWARD CHARACTERISTIC

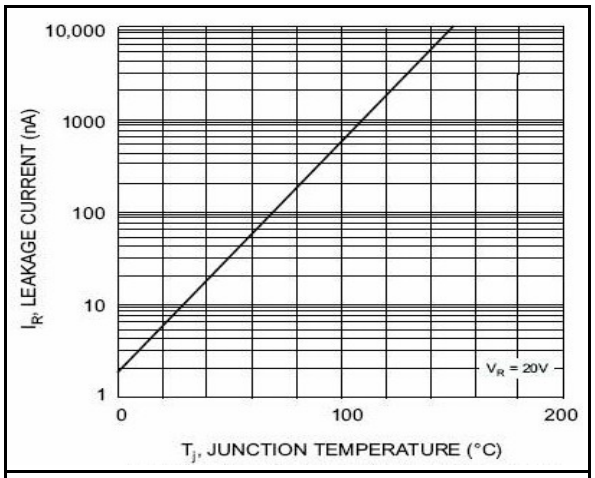
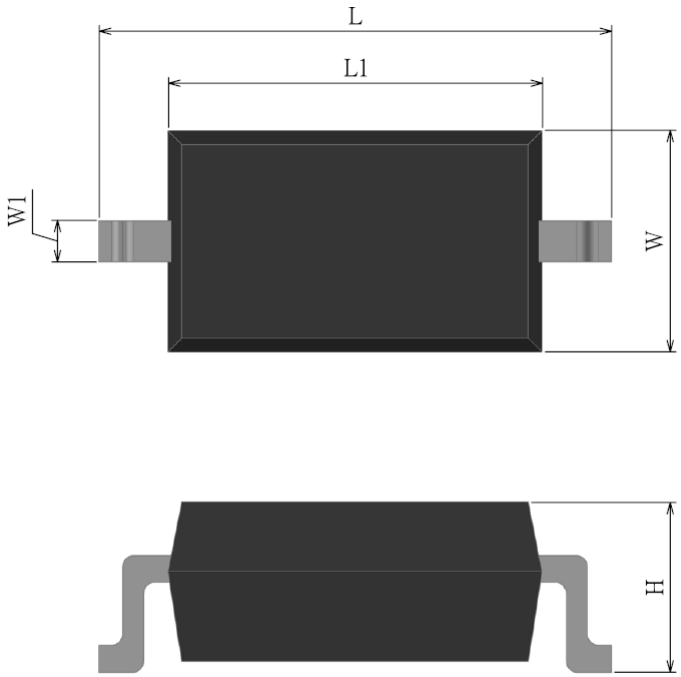


Fig.2-TYPICAL LEAKAGE CURRENT VS JUNCTION TEMPERATURE

SOD-323 DIMENSION



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
L	2.50	2.70	0.098	0.106
L1	1.60	1.80	0.063	0.071
W	1.20	1.40	0.047	0.055
W1	0.25	0.35	0.010	0.014
H	0.80	1.00	0.031	0.039