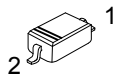
1N4148WS

HIGH-SPEED WAITCHING DIODE

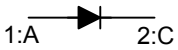
■ PRODUCT CHARACTERISTICS

VR(@IC=100uA)	100V
VF(Typ@IF=150mA)	1.25V
IR(@VR=75V)	5uA
Io	150mA

SYMBOL



SOD-323



■ FEATURES

* high speed

* Low forward voltage

* Fast reverse recovery time

■ ABSOLUTE MAXIMUM RATINGS (T_A=25℃, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Work Peak Reverse Voltage	V_{RWM}	100	V
DC Blocking Voltage	V_R	100	V
RMS Blocking Voltage	$V_{R(RMS)}$	71	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Non-repetitive Peak Forward Surge Current@t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	200	mW
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	625	℃/W
Operation Junction And Storage Temperature Range	T_J ,T_{STG}	-55 ~ +150	°C

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown Voltage	V_R	I_R=100uA	100	-	-	V
		I_R=5.0μA	75	-	-	V
Forward Voltage	V_F	I_F=1mA	-	-	0.715	V
		I_F=10mA	-	-	0.855	V
		I_F=50mA	-	-	1.0	V
		I_F=150mA	-	-	1.25	V
Reverse Current	I_R	V_R=20V	-	-	25	nA
		V_R=75V	-	-	5.0	μA
Total Capacitance	C_T	V_R=0,f=1.0MHz	-	-	4.0	pF
Reverse Recovery Time	t_{rr}	I_F=10mA, V_R=6.0V (60mA) I_{RR}=1.0mA, R_L=100Ω	-	-	4.0	ns

■ TYPICAL CHARACTERISTICS

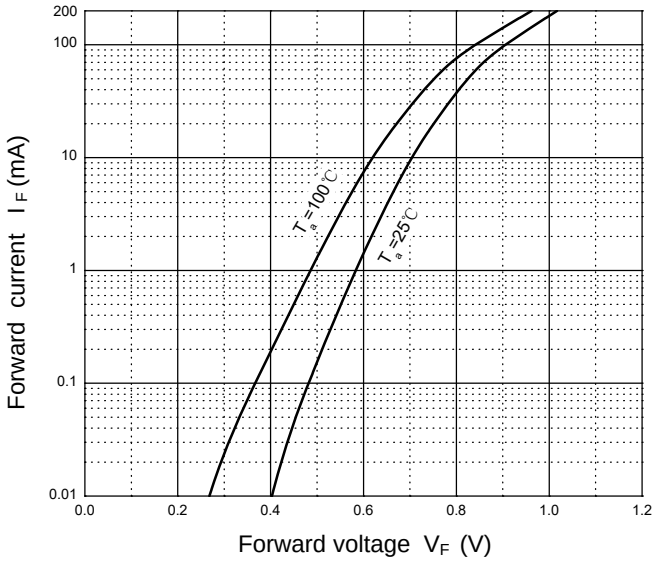


Figure 1: Forward characteristics

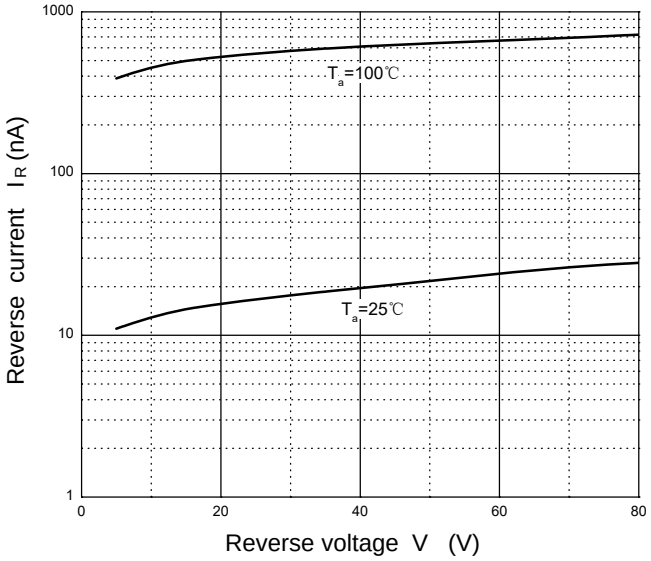


Figure 2: Reverse characteristics

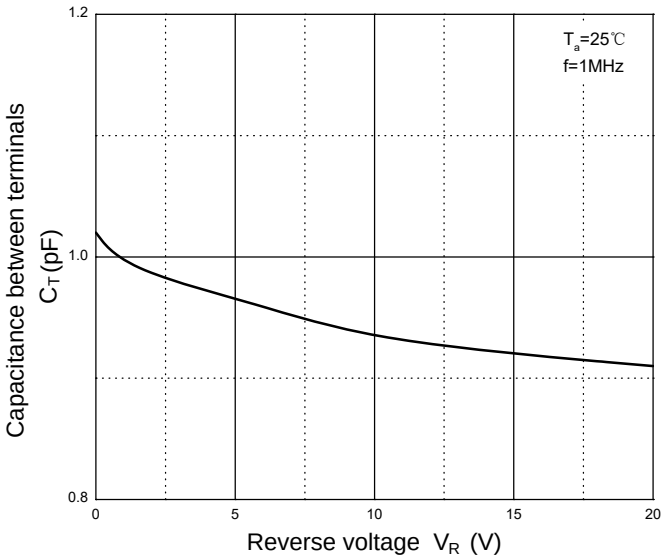


Figure 3: Capacitance characteristics

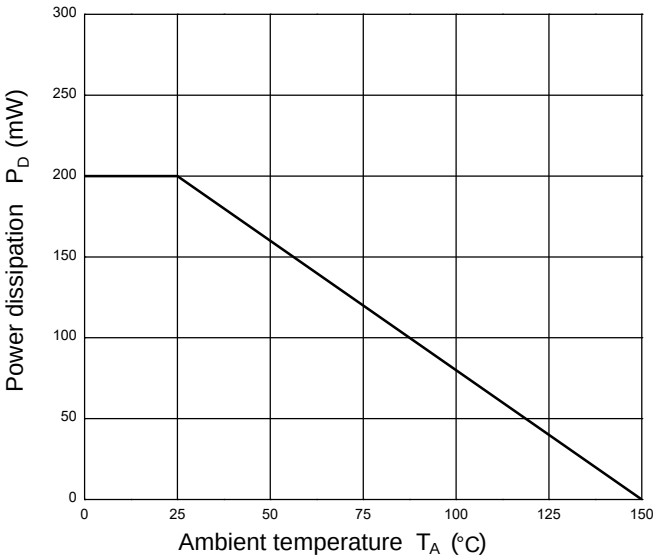
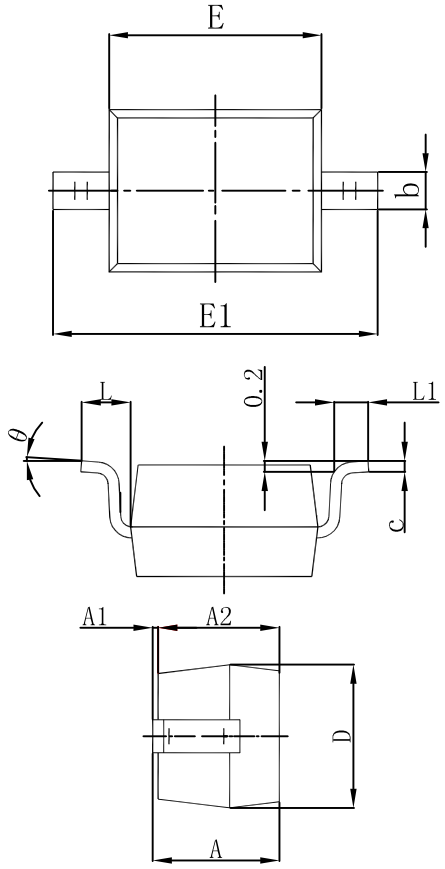


Figure 4: Power derating curve

■ SOD323 PACKAGE OUTINE DIMENSIONS



Symbol	Dimensions In Millimeters	
	Min	Max
A		1.100
A1	0.000	0.100
A2	0.800	1.000
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.750
L	0.475 REF	
L1	0.250	0.400
θ	0°	8°