



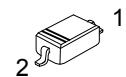
仁懋电子

4148WS  
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 ( $T_A=25^\circ C$ , 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	$^\circ C/W$
Operation Junction And Storage Temperature Range	$T_J, T_{STG}$	-55 ~ +150	$^\circ C$

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ C$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown Voltage	$V_R$	$I_R=100A$	100	-	-	V
		$I_R=5.0\mu A$	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	$\mu A$
Total Capacitance	$C_T$	$V_R=0, f=1.0MHz$	-	-	4.0	pF
Reverse Recovery Time	$t_{rr}$	$I_F=10mA, V_R=6.0V (60mA)$ $I_{RR}=1.0mA, R_L=100\Omega$	-	-	4.0	ns

## ■ TYPICAL CHARACTERISTICS

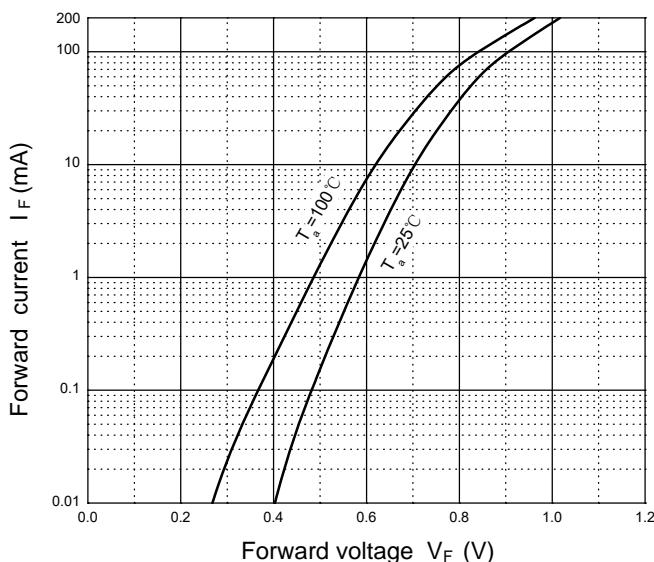


Figure 1: Forward characteristics

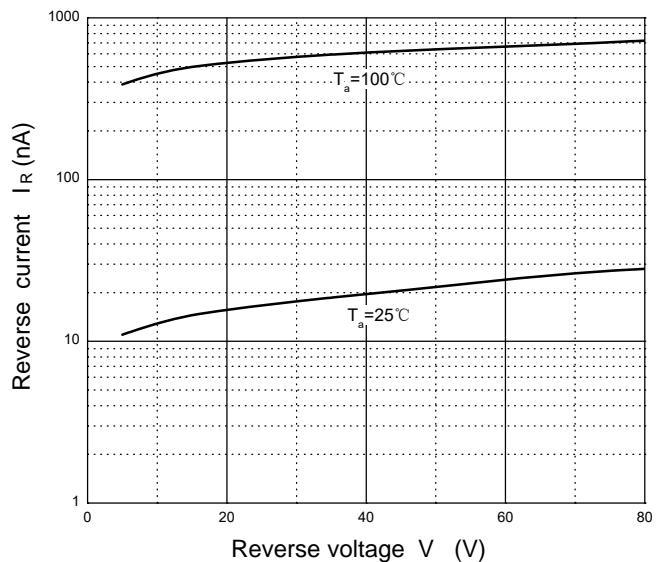


Figure 2: Reverse characteristics

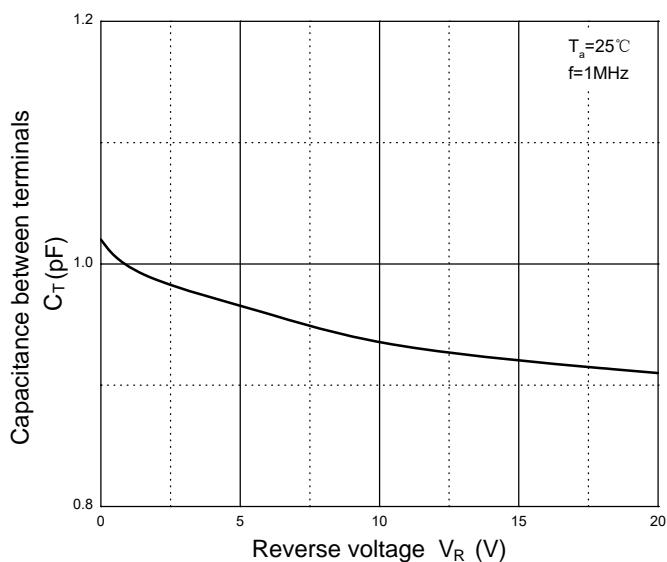


Figure 3: Capacitance characteristics

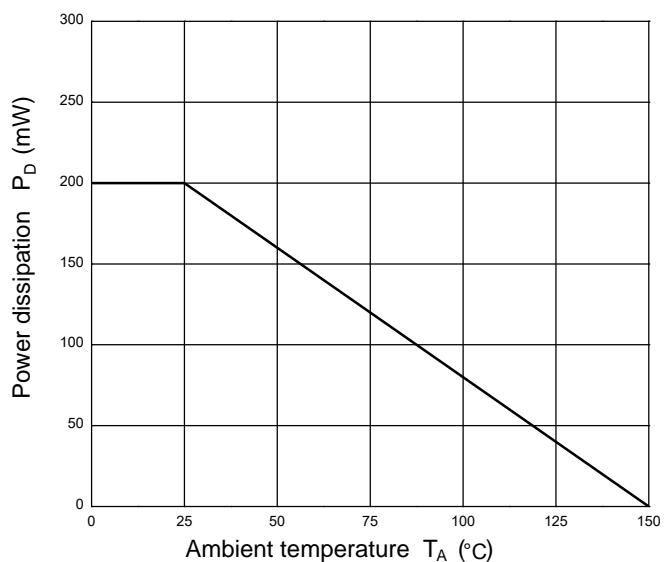
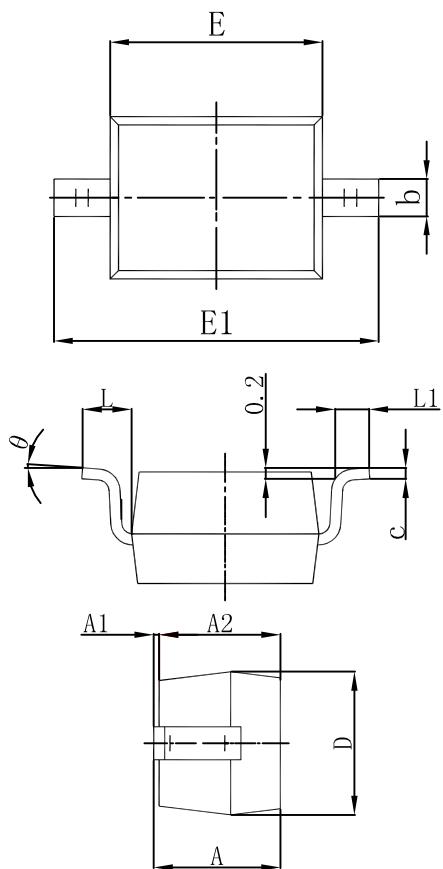


Figure 4: Power derating curve

## ■ SOD323 PACKAGE OUTLINE 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°