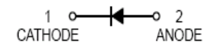
High Speed Switching Diode **1N4448WT**

FEATURES

Lead-free

- Fast switching speed.
- Surface mount package Ideally suited

  For automatic insertion.
- For general purpose switching application.
- High conductance.



SOD-523

APPLICATIONS

- Fast switching surface mount diode.

ORDERING INFORMATION

Type No.	Marking	Package Code
1N4448WT	T5	SOD-523

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Parameter	**Symbol**	**Limits**	**Unit**
Non-Repetitive peak reverse voltage	V_{RM}	100	V
Peak repetitive reverse voltage	V_{RRM}	75	V
Working peak reverse voltage	V_{RWM}	75	V
DC blocking voltage	V_R	75	V
RMS reverse voltage	$V_{R(RMS)}$	53	V
Average rectified output current	I_O	250	mA
Non-Repetitive peak forward surge current t=1.0μs t=1.0s	I_{FSM}	4.0 2.0	A
Total power dissipation	P_{tot}	150	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	833	℃/W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-65 to +150	℃

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	**Symbol**	**Min.**	**Typ.**	**Max.**	**Unit**	**Conditions**
Reverse breakdown voltage	$V_{(BR)R}$	75				I_R=10μA
Forward voltage	V_F	0.62		0.72	V	I_F=5mA
				0.855	V	I_F=10mA
				1.0	V	I_F=100mA
				1.25	V	I_F=150mA
Reverse current	I_R			2.5	μA	V_R=75V
				50	μA	V_R=75V,T_j=150℃
				30	μA	V_R=25V,T_j=150℃
				25	nA	V_R=20V
Diode capacitance	C_d			4.0	pF	V_R=0,f=1.0MHz
Reverse recovery time	t_{rr}			4.0	ns	I_F=I_R=10mA,I_{rr}=0.1* I_R, R_L=100Ω

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

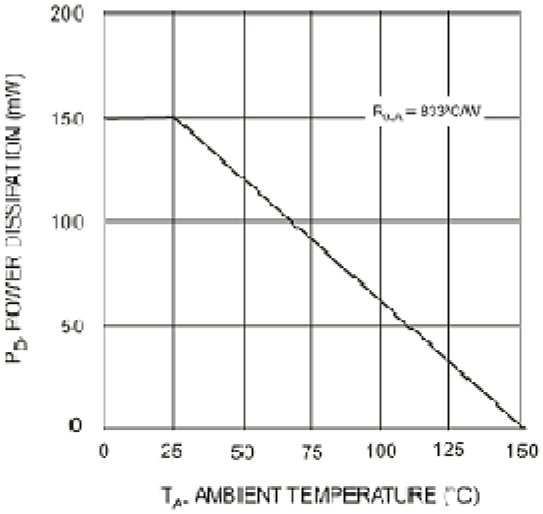

Fig. 1 Derating Curve

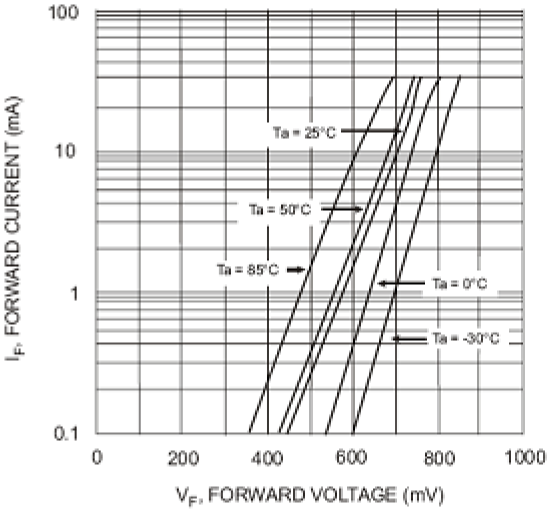

Fig. 2 Typical Forward Characteristics

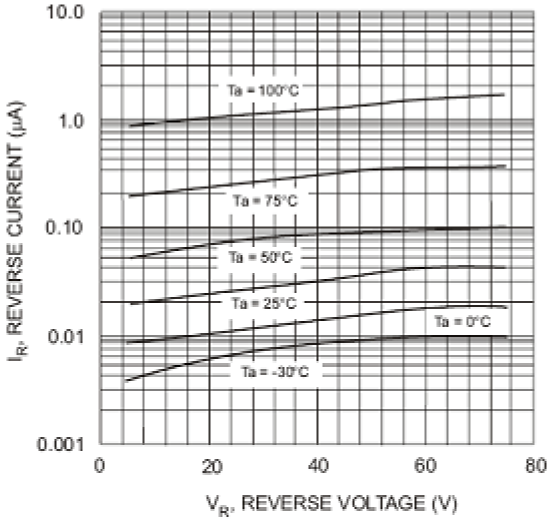

Fig. 3 Typical Reverse Characteristics

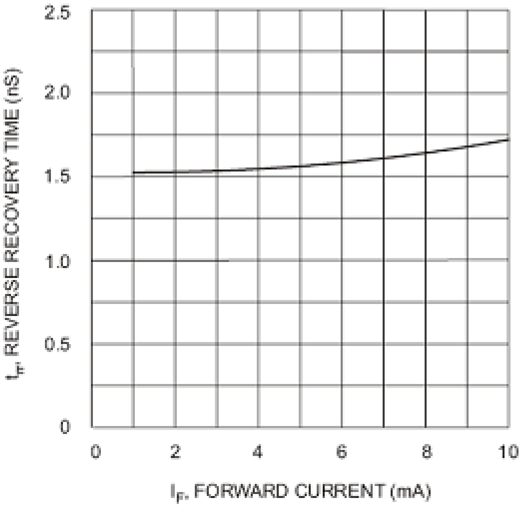

Fig. 4 Reverse Recovery Time vs. Forward Current

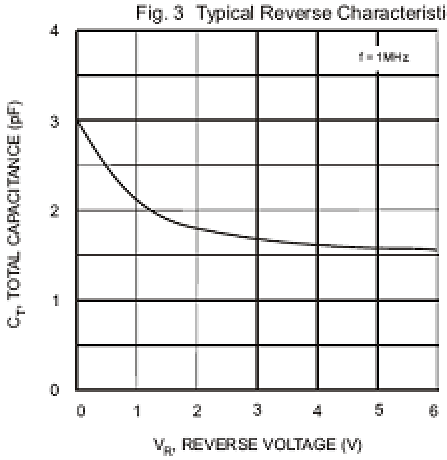

Fig. 5 Total Capacitance vs. Reverse Voltage

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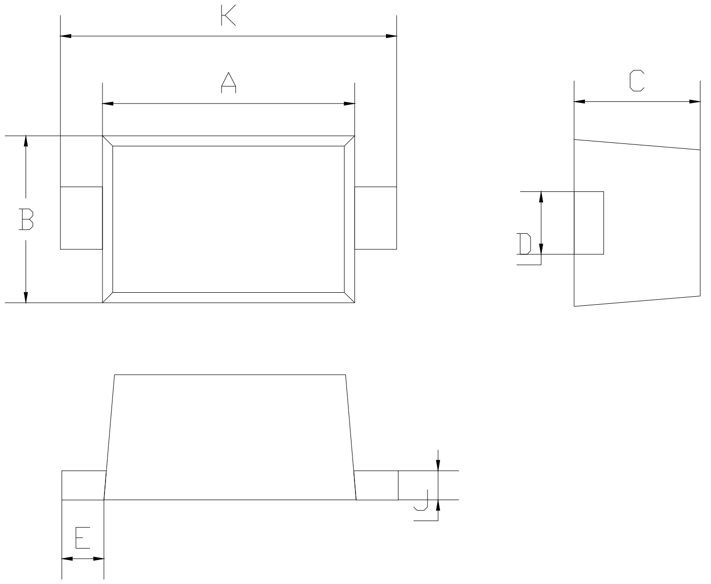
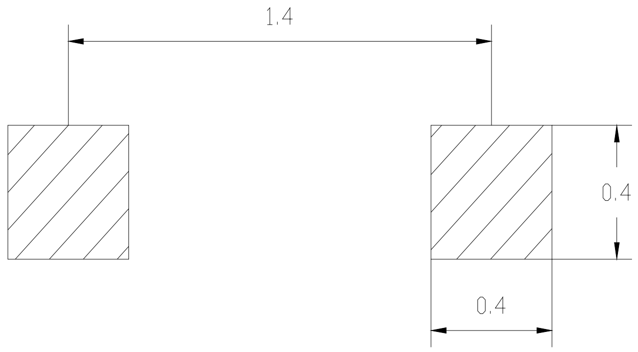
PACKAGE OUTLINE

Plastic surface mounted package SOD-523



SOD-523		
Dim	Min	Max
A	1.1	1..3
B	0.7	0.9
C	0.5	0.7
D	0.3 Typical	
E	0.15	0.25
J	0.1 Typical	
K	1.5	1.7
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit：mm

PACKAGE INFORMATION

Device	Package	Shipping
1N4448WT	SOD-523	3000/Tape&Reel