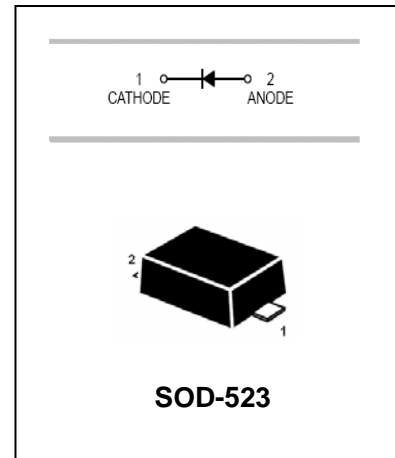


High Speed Switching Diode

1N4148WT

FEATURES

- Fast switching speed.
- Ultra-small surface mount package.
- For general purpose switching application.
- High conductance.
- Lead free product.
- MSL 1



APPLICATIONS

- High-speed switching in surface mounted circuits.

ORDERING INFORMATION

Type No.	Marking	Package Code
1N4148WT	T4	SOD-523

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Non-Repetitive peak reverse voltage	V_{RM}	100	V
Reverse voltage	V_R	75	V
RMS Reverse voltage	$V_{R(RMS)}$	75	V
Average rectified output current	I_O	125	mA
Non-Repetitive peak forward surge current	I_{FSM}	2.0 1.0	A
		$t=1.0\mu s$ $t=100ms$	
Total power dissipation	P_{tot}	150	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	833	°C/W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-65 to +150	°C

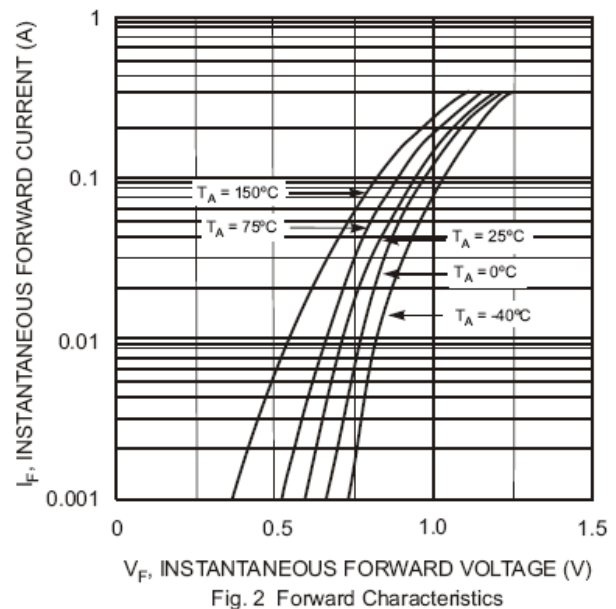
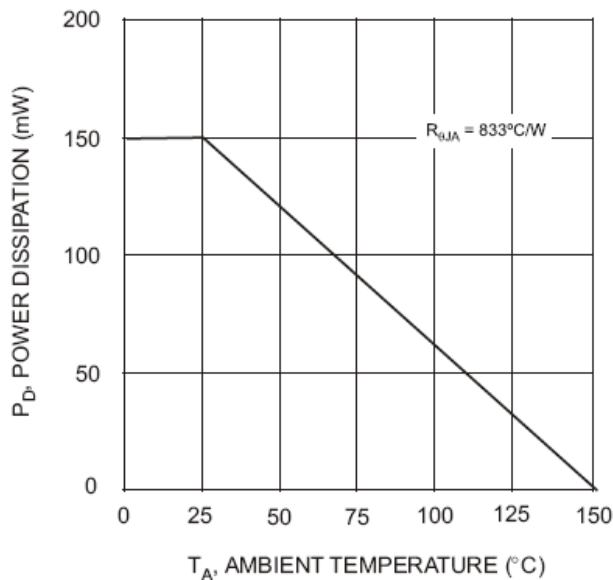
High Speed Switching Diode

1N4148WT

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

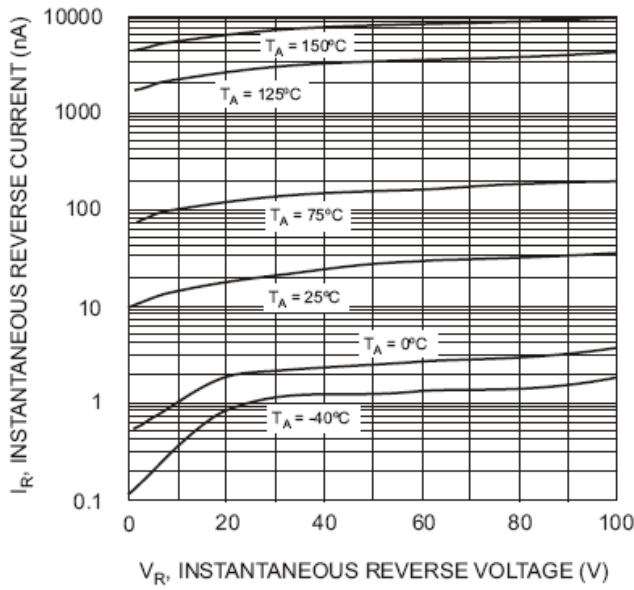
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)R}$	75				$I_R=1.0\mu A$
Forward voltage	V_F			0.715	V	$I_F=1mA$
				0.855	V	$I_F=10mA$
				1.0	V	$I_F=50mA$
				1.25	V	$I_F=150mA$
Reverse current	I_R			1.0	μA	$V_R=75V$
				25	nA	$V_R=20V$
Diode capacitance	C_d			2.0	pF	$V_R=0, f=1.0MHz$
Reverse recovery time	t_{rr}			4.0	ns	$I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

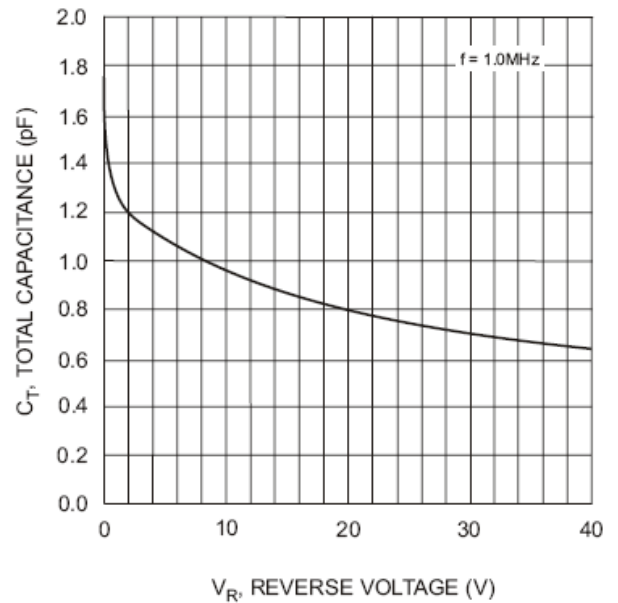


High Speed Switching Diode

1N4148WT



V_R , INSTANTANEOUS REVERSE VOLTAGE (V)
 Fig. 3 Typical Reverse Characteristics



V_R , REVERSE VOLTAGE (V)
 Fig. 4 Typical Capacitance vs. Reverse Voltage

PACKAGE OUTLINE

Plastic surface mounted package

SOD-523

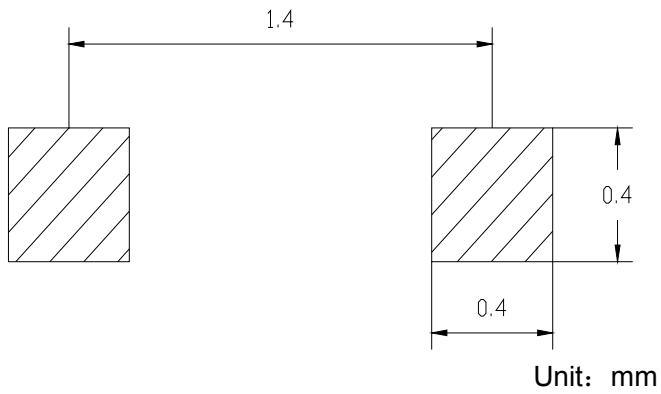
Mechanical drawing of the SOD-523 package showing dimensions: A (width), B (height), C (lead length), D (lead thickness), E (lead width), J (lead height), and K (total length).

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		

High Speed Switching Diode

1N4148WT

SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
1N4148WT	SOD-523	3000/Tape&Reel