



## SOD-523 Plastic-Encapsulate Diodes

**1N4148WT** FAST SWITCHING DIODES

SOD-523



### FEATURES

Fast Switching Speed  
 Surface Mount Package Ideally Suited for Automatic Insertion  
 For General Purpose Switching Applications  
 High Conductance

MARKING: T4

Maximum Ratings and Electrical Characteristics, Single Diode @ $T_A=25^{\circ}\text{C}$

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage	$V_{RM}$	100	V
Peak Repetitive Peak reverse voltage	$V_{RRM}$	75	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	$I_{FM}$	250	mA
Average Rectified Output Current	$I_O$	125	mA
Peak forward surge current @=1.0 $\mu\text{s}$ @=1.0s	$I_{FSM}$	2.0 1.0	A
Power Dissipation	$P_d$	150	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	K/W
Junction temperature	$T_j$	125	$^{\circ}\text{C}$
Storage temperature	$T_{STG}$	-65~+150	$^{\circ}\text{C}$

Electrical Ratings @ $T_A=25^{\circ}\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_{F1}$			0.715	V	$I_F=1\text{mA}$
	$V_{F2}$			0.855	V	$I_F=10\text{mA}$
	$V_{F3}$			1.0	V	$I_F=50\text{mA}$
	$V_{F4}$			1.25	V	$I_F=150\text{mA}$
Reverse current	$I_{R1}$			1	$\mu\text{A}$	$V_R=75\text{V}$
	$I_{R2}$			25	nA	$V_R=20\text{V}$
Capacitance between terminals	$C_T$			2	pF	$V_R=0\text{V}, f=1\text{MHz}$
Reverse Recovery Time	$t_{rr}$			4	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1I_R, R_L=100\Omega$

# Typical Characteristics

# 1N4148WT

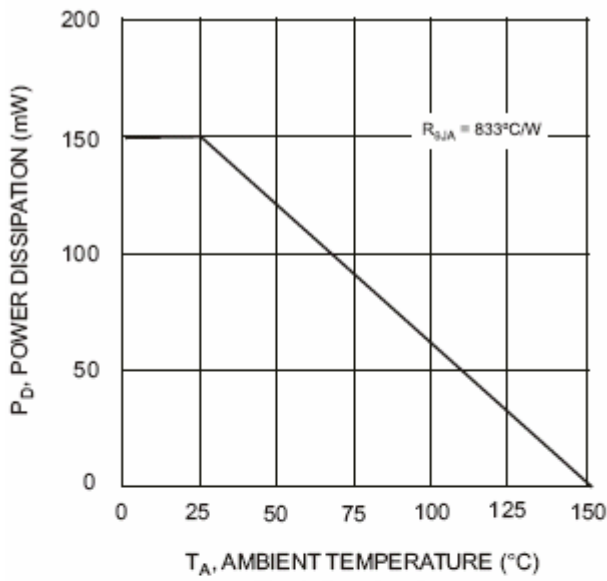


Fig. 1 Derating Curve

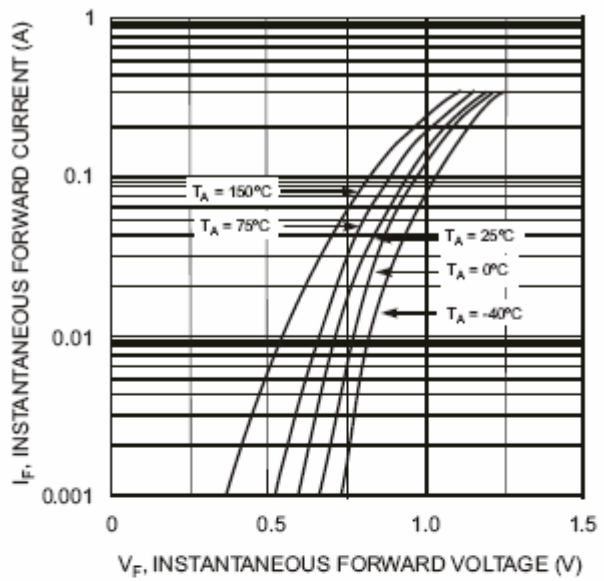


Fig. 2 Forward Characteristics

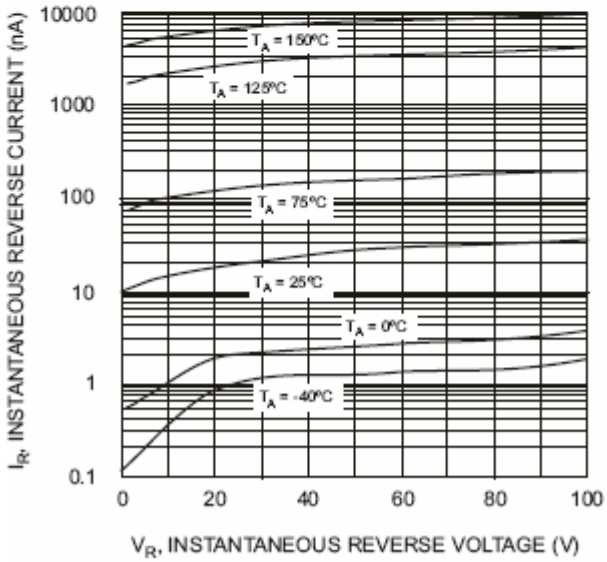


Fig. 3 Typical Reverse Characteristics

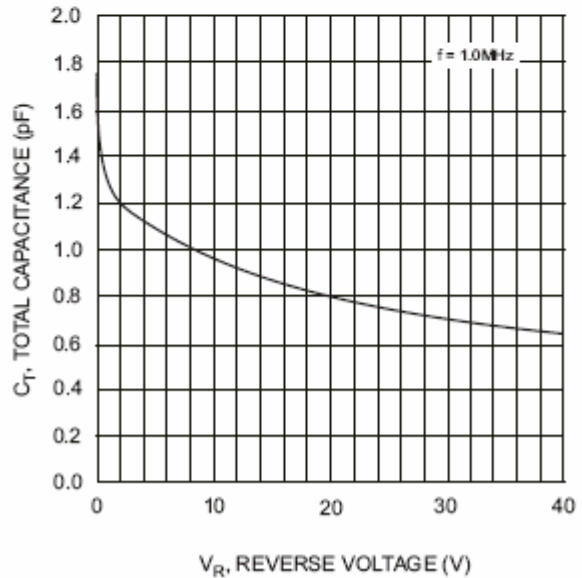


Fig. 4 Typical Capacitance vs. Reverse Voltage