

# 1N4148WT

## 150mW Surface Mount Switching Diode-100V

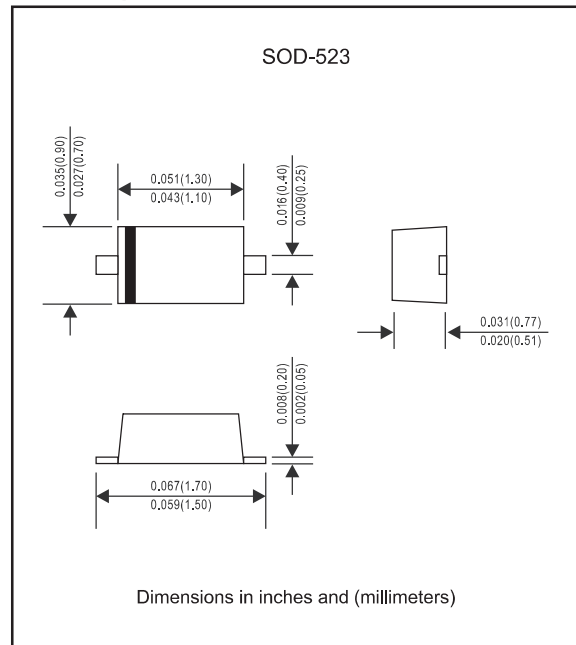
### Features

- Small package
- Low reverse current
- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Lead-free parts meet RoHS requirements
- Compliant to Halogen-free.

### Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-523
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

### Package outline



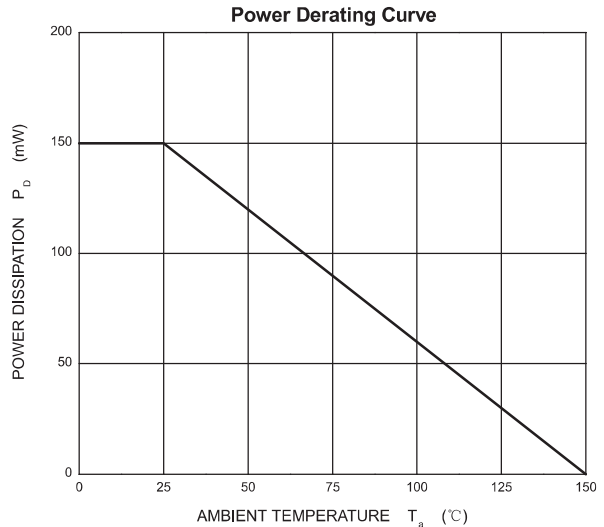
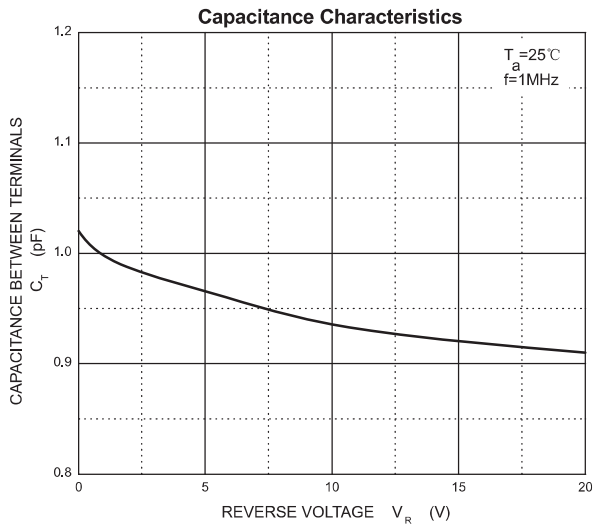
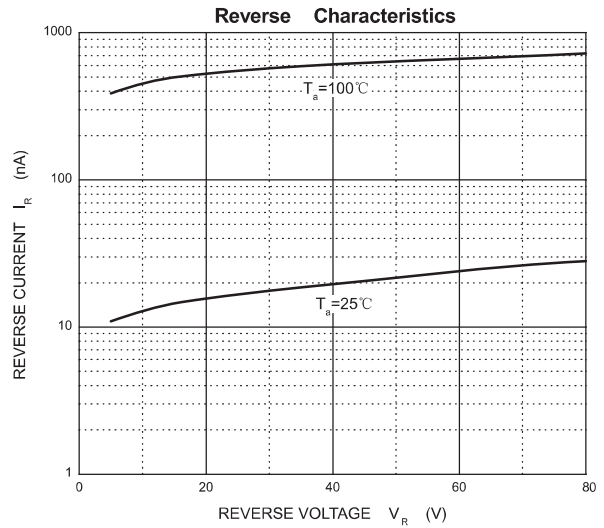
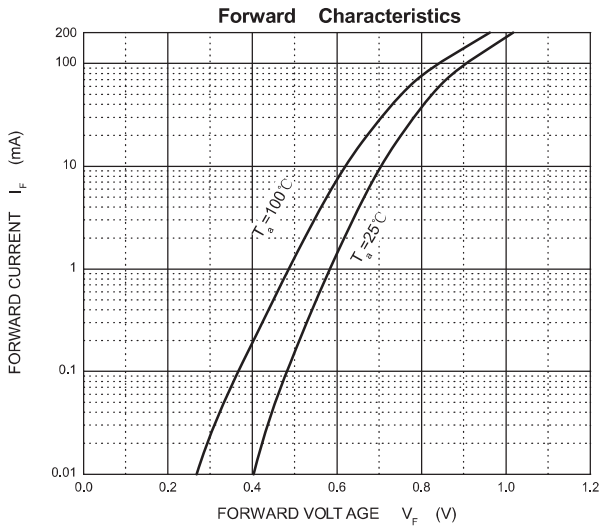
### Maximum ratings (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	UNIT
Non-repetitive peak reverse voltage	$V_{RM}$	100	V
Reverse voltage	$V_R$	75	V
Peak repetitive reverse voltage	$V_{RRM}$		
Working peak reverse voltage	$V_{RWM}$		
RMS reverse voltage	$V_{RMS}$	53	V
Average rectified output current	$I_O$	150	mA
Forward continuous current	$I_{FM}$	300	mA
Non-repetitive peak forward surge current@t= 8.3ms	$I_{FSM}$	2	A
Power dissipation	$P_D$	150	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	833	$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

### Electrical characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)



Parameter	Condition	Symbol	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	$I_R=1\mu\text{A}$	$V_B$	75			V
Reverse leakage current	$V_R=20\text{V}$ $V_R=75\text{V}$	$I_R$			25 1	nA $\mu\text{A}$
Forward voltage	$I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$	$V_F$			0.715 0.855 1.00 1.25	V
Reverse recovery time	$I_F=I_R=10\text{mA}$ , $I_{rr}=0.1*I_R$ , $R_L=100\Omega$	$t_{rr}$			4.0	ns
Total capacitance	$V_R=0\text{V}$ , $f=1\text{MHZ}$	$C_T$			2.0	pF

## Rating and characteristic curves (1N4148WT)



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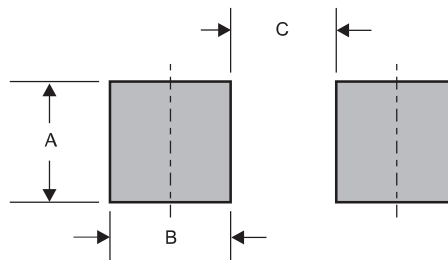
## Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

## Marking

Type number	Marking code
1N4148WT	E1 or T4

## Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-523	0.032 (0.80)	0.024 (0.60)	0.044 (1.10)