

1N4148WT

150mW Surface Mount Switching Diode-100V

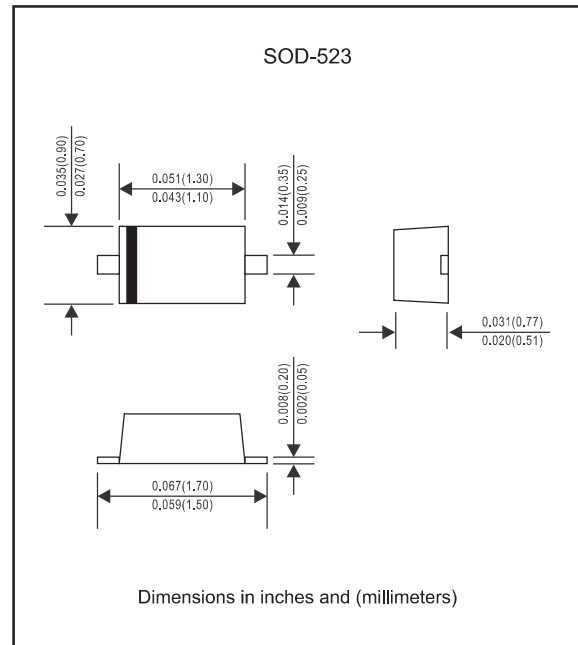
Features

- 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



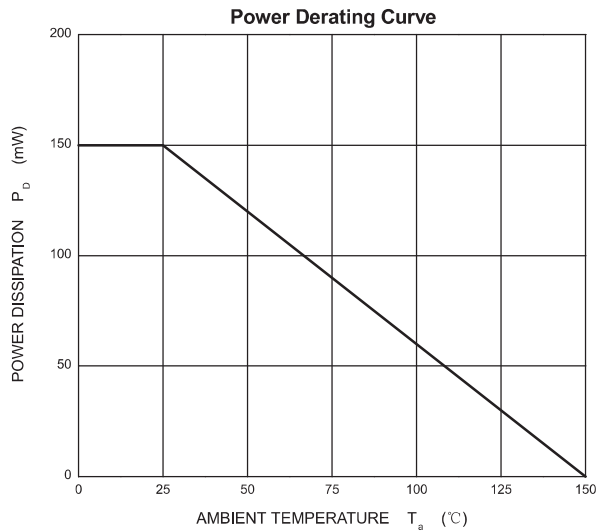
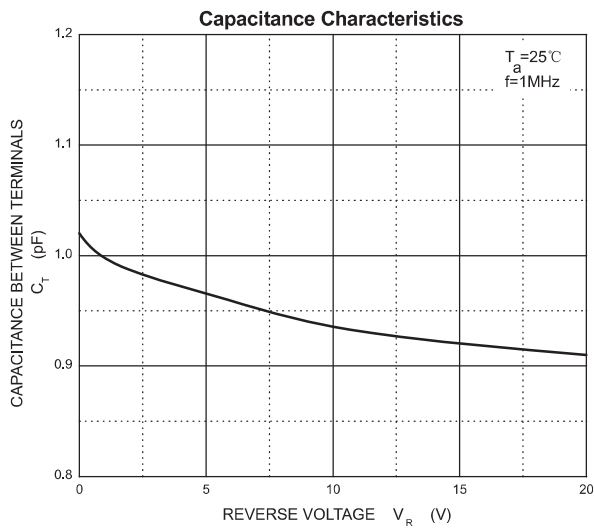
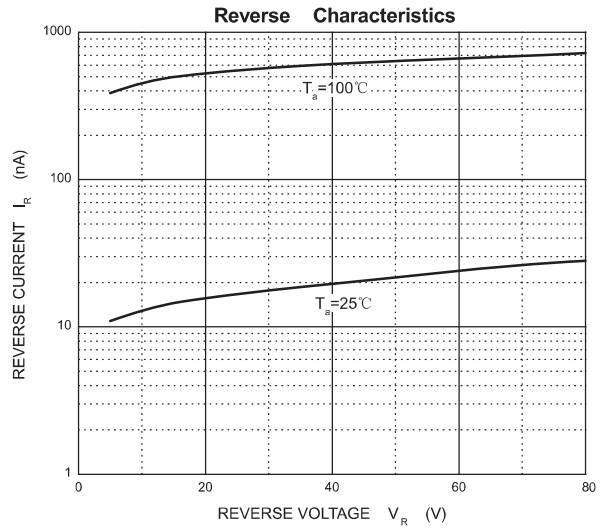
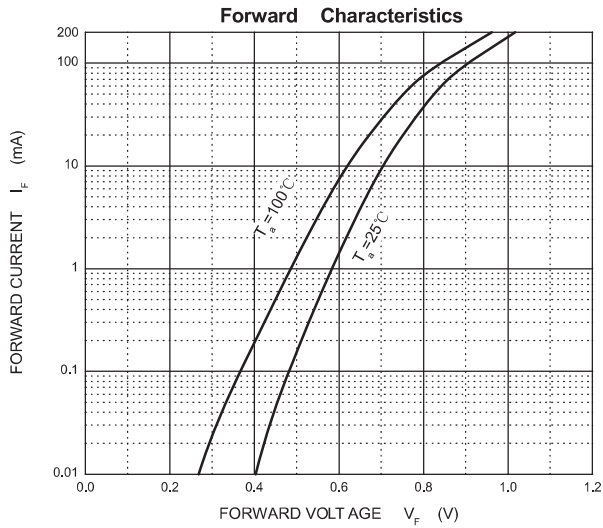
Maximum ratings (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

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@ $t=8.3\text{ms}$	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 μA
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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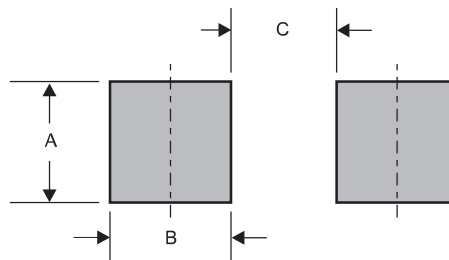
Pinning information

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)

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-523	7"	8,000	2.0	80,000	183*123*183	178	382*257*387	640,000	9.5