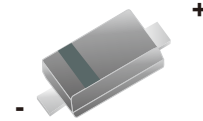


## 1N4148WT-HF

RoHS Device

Halogen Free

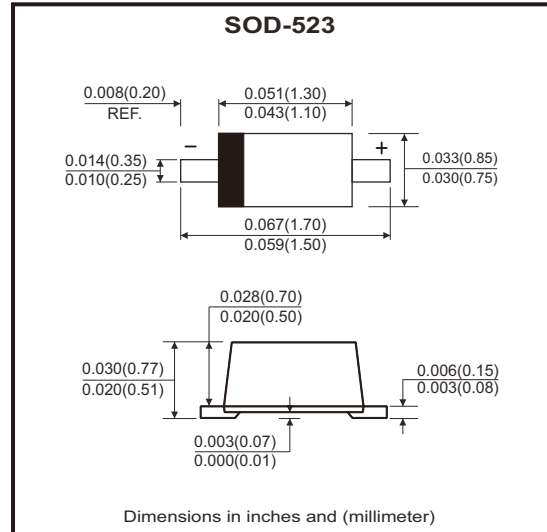


### Features

- Fast switching device ( $T_{rr} < 4.0\text{nS}$ ).
- Power dissipation of 150mW.
- High stability and high reliability.
- Low reverse leakage.

### Mechanical data

- Case: SOD-523, molded plastic.
- Polarity: Color band denotes cathode end.
- Mounting position: Any.



### Circuit Diagram



### Maximum Rating (at $T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Reverse voltage	$V_R$	75	V
Peak reverse voltage	$V_{RM}$	100	V
Power dissipation	$P_D$	150	mW
Operating junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^\circ\text{C}$
Thermal resistance from junction to ambient	$R_{\theta JA}$	833	$^\circ\text{C/W}$
Working inverse voltage	$W_{IV}$	75	V
Average rectified current	$I_O$	150	mA
Non-repetitive peak forward current	$I_{FM}$	300	mA
Peak forward surge current @ $t_p = 1\mu\text{s}$ , $T_A = 25^\circ\text{C}$	$I_{FSM}$	2.0	A

## Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Breakdown voltage	$I_R = 100\mu A$ $I_R = 5\mu A$	$B_V$	100 75			V
Reverse leakage current	$V_R = 20V$	$I_R$			25	nA
	$V_R = 75V$				1	$\mu A$
Forward voltage	$I_F = 1.0mA$	$V_F$			0.715	V
	$I_F = 10mA$				0.855	
	$I_F = 50mA$				1.00	
	$I_F = 150mA$				1.25	
Reverse recovery time	$I_F = I_R = 10mA, R_L = 100\Omega$ $t_{rr} = 0.1 \times I_R$	$T_{RR}$			4	nS
Capacitance	$V_R = 0V, f = 1MHz$	$C_T$			2	pF

## Rating and Characteristic Curves (1N4148WT-HF)

Fig.1 - Forward Characteristics

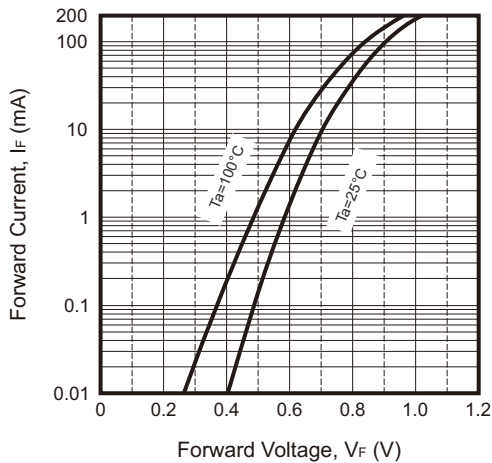


Fig.2 - Reverse Characteristics

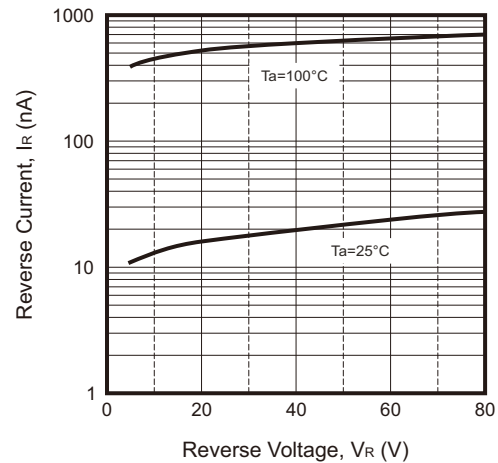


Fig.3 - Capacitance Characteristics

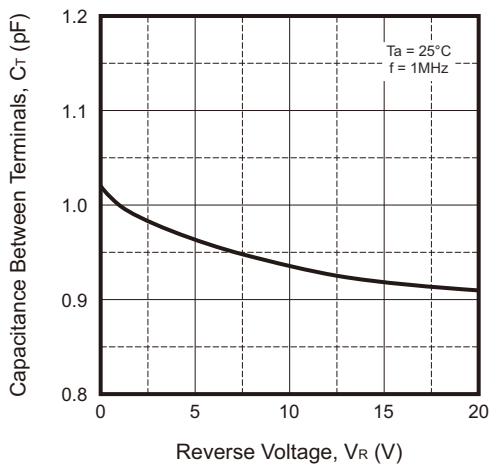
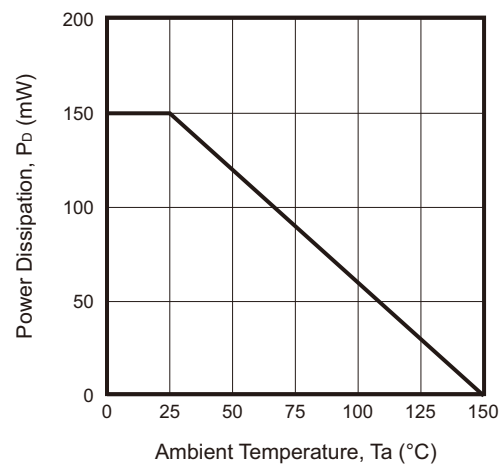
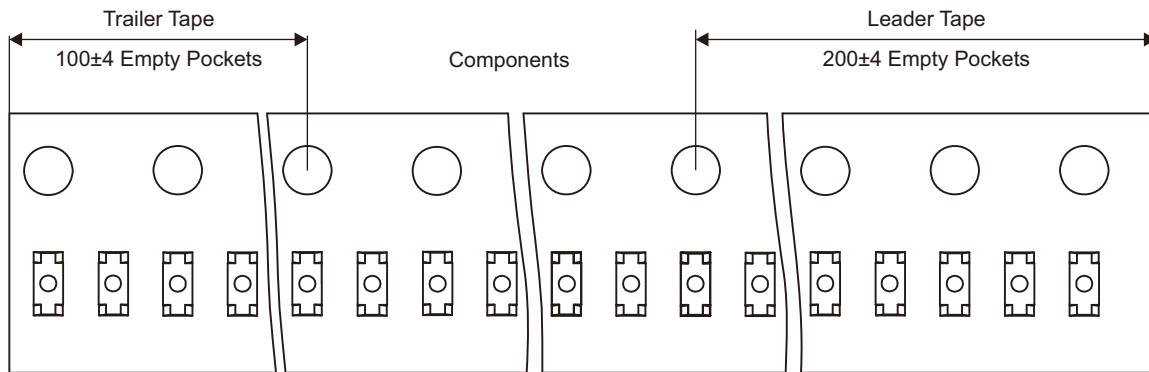
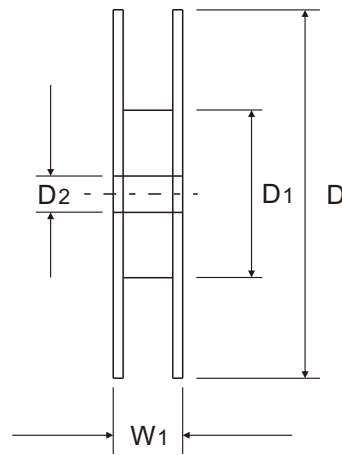
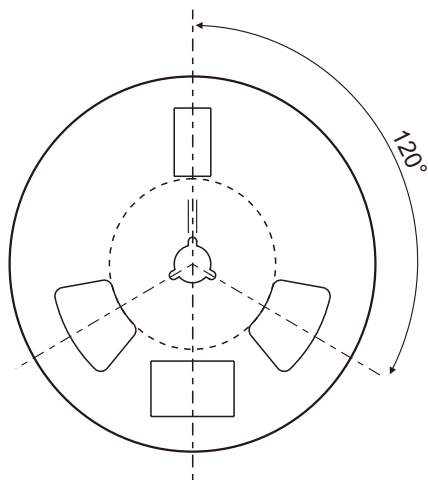
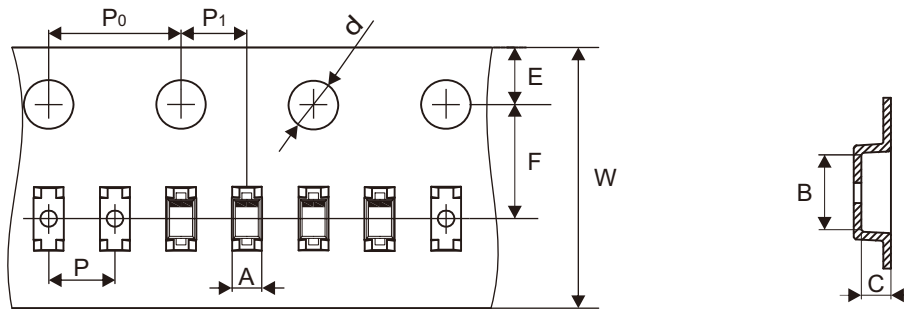


Fig.4 - Power Derating Curve



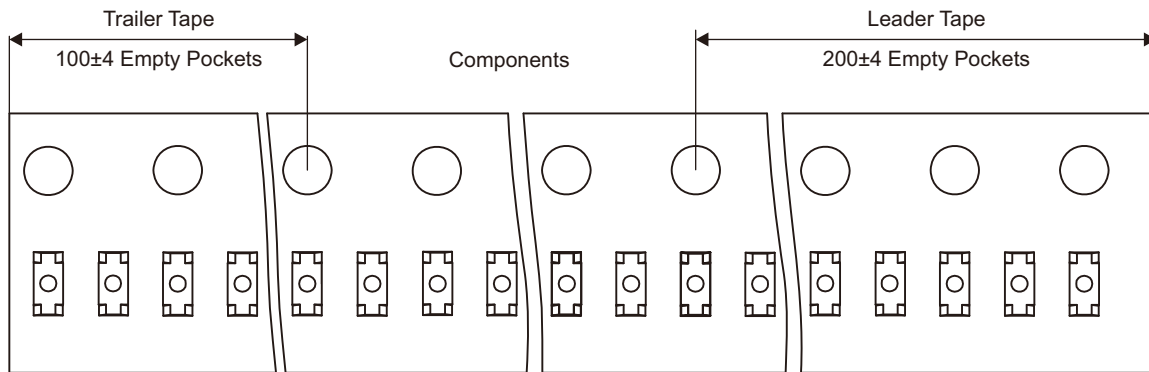
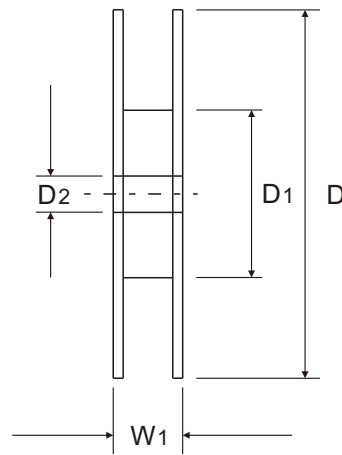
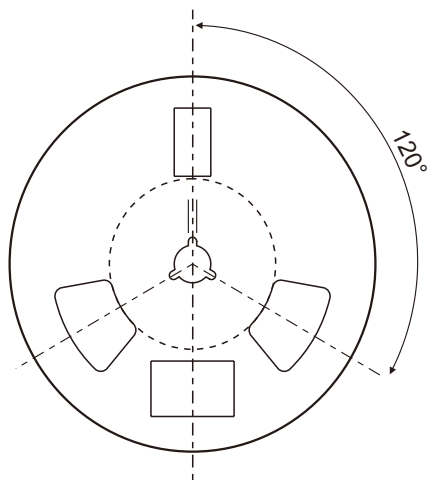
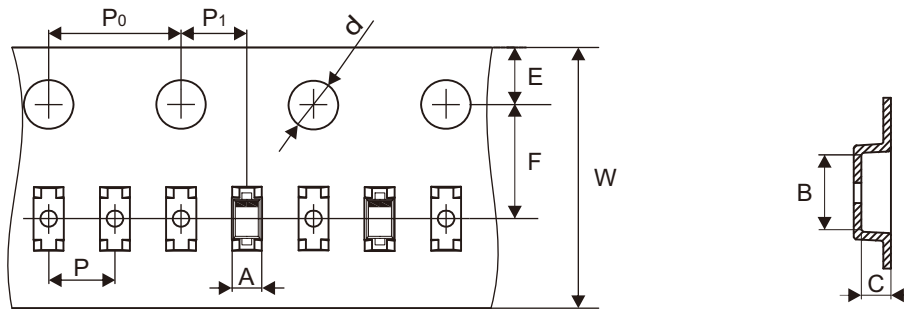
## Reel Taping Specification (For 1N4148WT-F-HF)



SOD-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.90 ± 0.05	1.94 ± 0.05	0.73 ± 0.05	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.035 ± 0.002	0.076 ± 0.002	0.029 ± 0.002	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-523	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	2.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.079 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

## Reel Taping Specification (For 1N4148WT-H-HF)

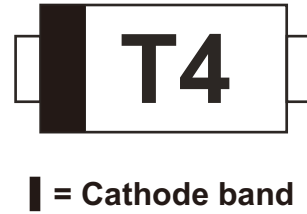


SOD-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.90 ± 0.05	1.94 ± 0.05	0.73 ± 0.05	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.035 ± 0.002	0.076 ± 0.002	0.029 ± 0.002	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-523	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	2.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.079 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

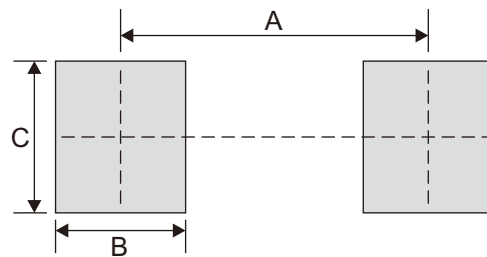
## Marking Code

Part Number	Marking Code
1N4148WT-F-HF	T4
1N4148WT-H-HF	



## Suggested P.C.B. PAD Layout

SIZE	SOD-523	
	(mm)	(inch)
<b>A</b>	1.42	0.056
<b>B</b>	0.60	0.024
<b>C</b>	0.70	0.028



## Standard Packaging

Case Type		REEL PACK	
		REEL (pcs)	Reel Size (inch)
SOD-523	1N4148WT-F-HF	8,000	7
	1N4148WT-H-HF	3,000	