SPECIFICATION SHEET

SMD FAST SWITHING DIODES CASE SOD-523 1N4 SERIES

SPECIFICATION SHEET NO.	T0130 – 1N4148WT00S0T4	
ORIGINAL MFG/PART NO.	MDD Diodes/1N4148WT/SOD523148WTST4	
NEXTGEN PART CODE	1N4148WT00S0T4	Indicate This Code For RFQ /Order
DATE	Jan. 30, 2026	
REVISION	A4	Updated With Most Recent Data
DESCRIPTION AND MAIN PARAMETRICS	SMD Fast Switching Diodes, SOD- 523 1N4 Series, 2 Pads Reverse Voltage: 75V Max. Forward Current 0.3A Max. Junction temperature Range -55°C ~ 150°C Package in Tape/Reel, 3000pcs/Reel RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863) and Halogen Free (HF)	
CUSTOMER		
CUSTOMER PART NUMBER		
CROSS REF. PART NUMBER		
MEMO		

VENDOR APPROVE	
Issued/Checked/Approved	Mandy Xu; Ruby Zhang; Jack Zhang
Effective Date: Jan. 30, 2026	

CUSTOMER APPROVE
Date:

MAIN FEATURE

Image shown is a representation only. Exact specifications should be obtained from the product dimension.

- Fast Switching Speed
- Small Package, Case Type SOD-523
- Low Reverse Current
- Surface Mount Package Ideally Suited For Automatic Insertion
- Meet MSL 1 Requirement
- Cross Competitors Parts and More.
- RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863) and Halogen Free (HF)

APPLICATION

- For General Purpose Switching Applications

ELECTRICAL CHARACTERISTICS

- See Page 5 ~ Page 6.
- All Products Parameters are Subject To NextGen Components' Final Confirmation.

HOW TO ORDER

- Please Follow Up Part Code Guide And Indicate NextGen Part Code 1N4148WT00S0T4 For RFQ and Order.

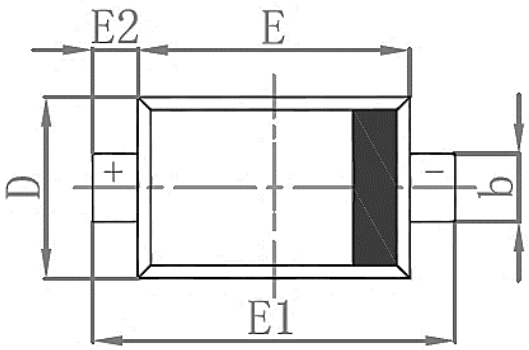
PART CODE GUIDE

RFQ
Request For Quotation

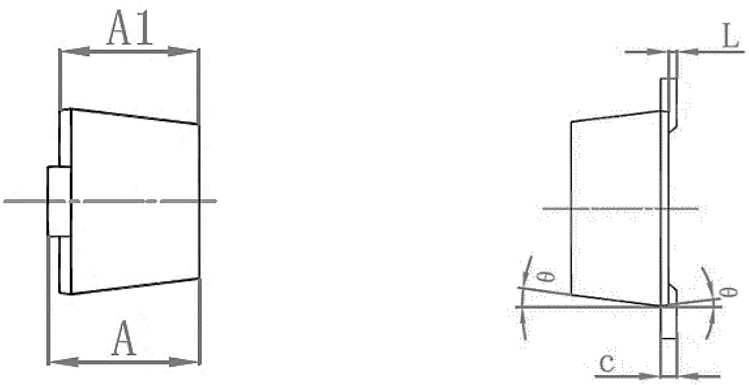
CODE	NAME	KEY SPECIFICATION OPTION
1N4	Product Series Code	SMD Fast Switching Diodes, 2 Pads
148WT	Parameters Code	Letter or Digits (A~Z, a~z or 0~9)
00S0	Internal Control Code	Letter or Digits (A~Z, a~z or 0~9)
T4	Marking Code	Marking “T4”
XX	Special/Custom Parameters Code	Letter or Digits (A~Z, a~z or 0~9) for Special Parametric; Blank: N/A

DIMENSION - Unit: mm, Case SOD-523, Inch/mm

Top View

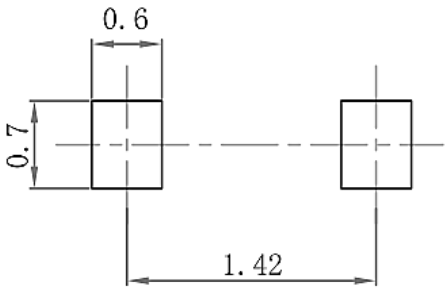


Side View

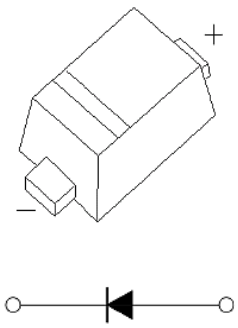


SYMBOL	VALUE (MM)		VALUE (INCH)	
	MIN.	MAX.	MIN.	MAX.
A	0.51	0.770	0.020	0.031
A1	0.50	0.770	0.020	0.031
b	0.250	0.400	0.010	0.016
c	0.080	0.150	0.003	0.006
D	0.750	1.000	0.030	0.040
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.150	0.250	0.006	0.010
L	0.000	0.070	0.000	0.003
K	0°	8°	0°	8°

Recommend Pad Layout - Tolerance: ±0.05mm



Circuit Diagram



MECHANICAL CHARACTERISTICS

CASE	FLAMMABILITY RATING	TERMINALS	MARKING
JEDEC SOD-523 molded plastic body	UL 94V-0	Solder plated, solderable per MIL-STD-750,Method 2026	T4

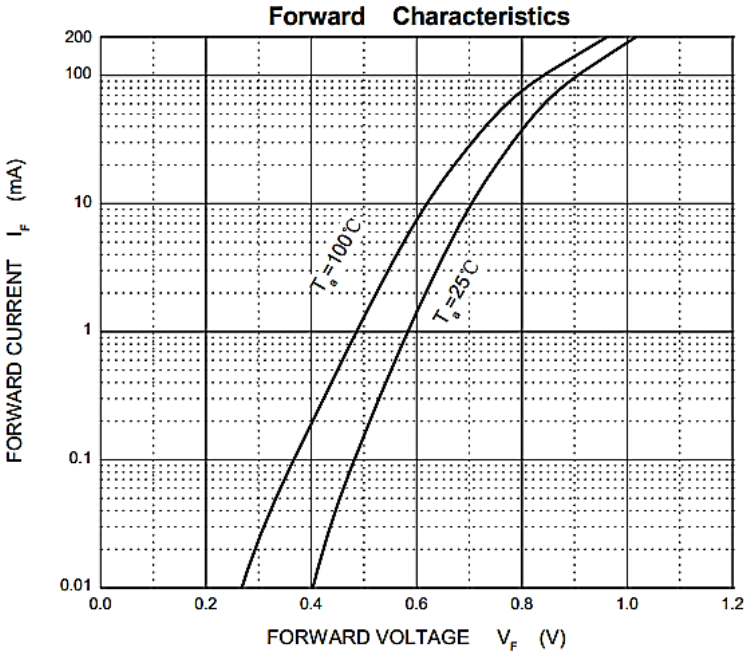
ABSOLUTE MAX. RATING - T_A=25°C unless otherwise specified, For Reference Only

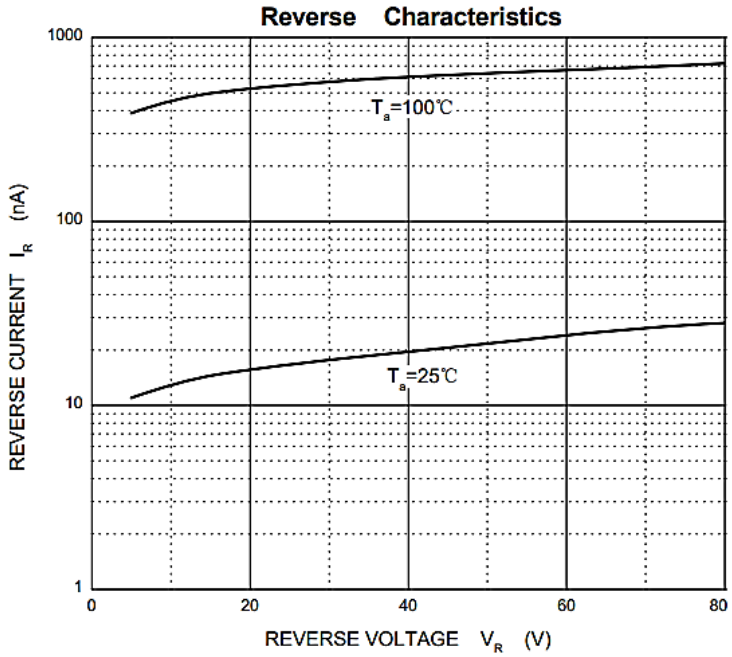
PARAMETER	SYMBOLS	VALUE	UNITS
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Peak Repetitive Reverse Voltage	V_{RRM}		V
Working Peak Reverse Voltage	V_{RWM}		V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_O	150	mA
Forward Continuous Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current @t=8.3m s	I_{FSM}	2	A
Power Dissipation	P_D	150	mW
Thermal Resistance From Junction To Ambient	$R_{\Theta JA}$	833	°C/W
Junction temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	-55 ~+ 150	°C

CHARACTERISTICS- T_A=25℃ unless otherwise specified, For Reference Only

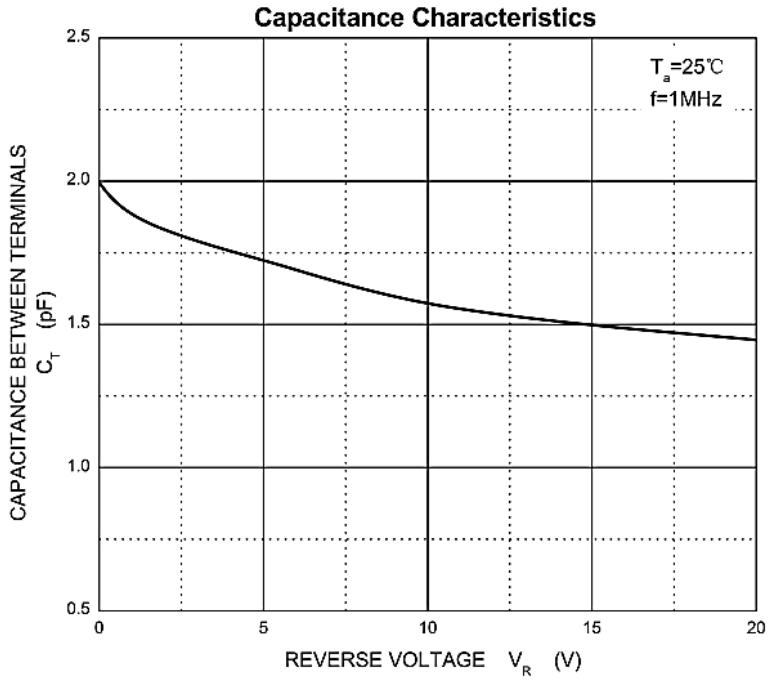
PARAMETER	SYMBOLS	VALUE			UNIT	CONDITION
		Min.	Typ.	Max.		
Reverse Voltage	$V_{(BR)}$	75			V	@ I_R= 1μA
Reverse Current	I_R			1	μA	@ V_R=75V
				25	nA	@ V_R= 20 V
Forward Voltage	V_F			0.715	V	@ I_F=1mA
				0.855		@ I_F=10 mA
				1		@ I_F=50 mA
				1.25		@ I_F=150mA
Total Capacitance	C_{tot}			2	pF	V_R = 0V, f=1 MHz
Reverse Recovery Time	t_{rr}			4	ns	I_F =I_R=10mA, I_{rr}=0.1*I_R, R_L =100Ω

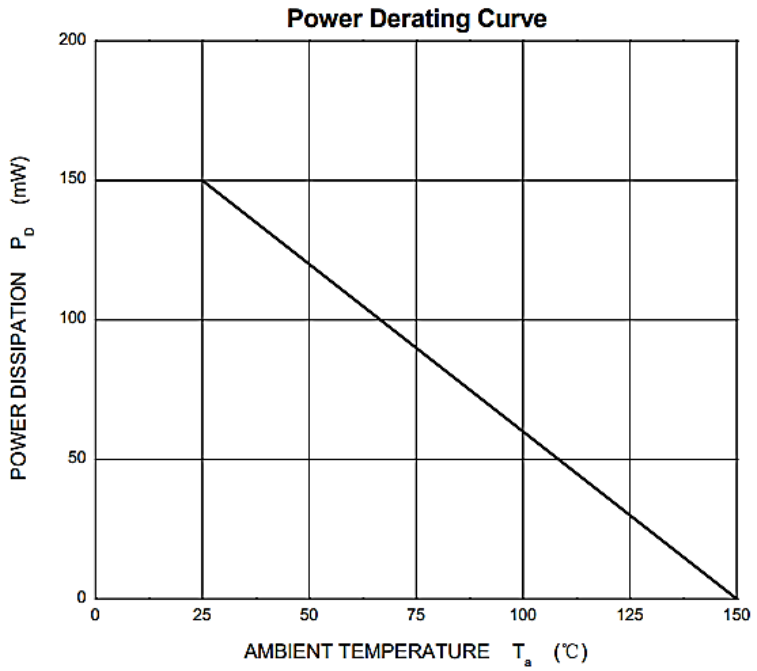
RATINGS AND CHARACTERISTICS CURVES- For Reference Only, Ta=25℃ Unless Otherwise Specified.



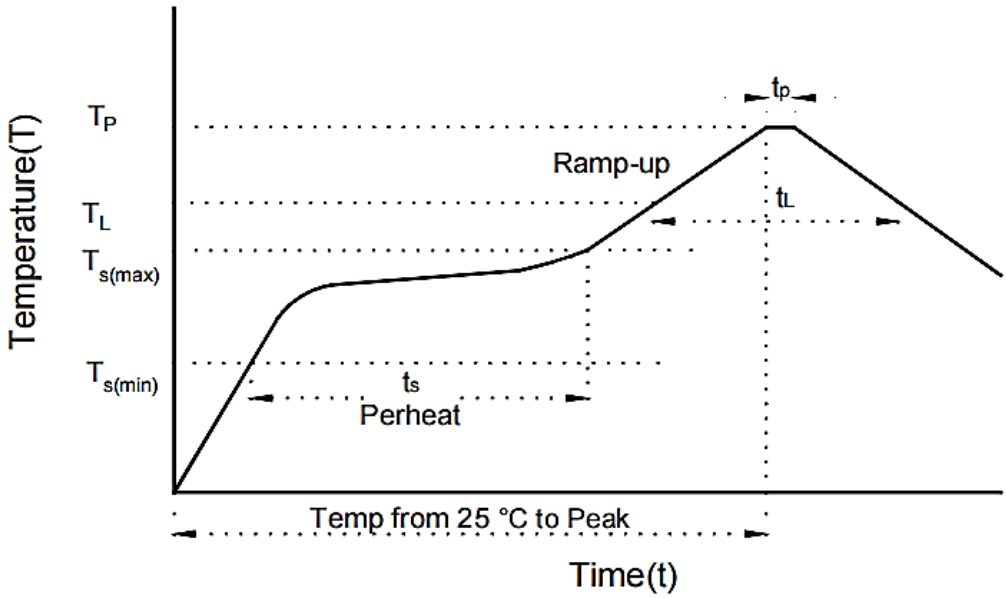


RATINGS AND CHARACTERISTICS CURVES- For Reference Only, Ta=25℃ Unless Otherwise Specified.



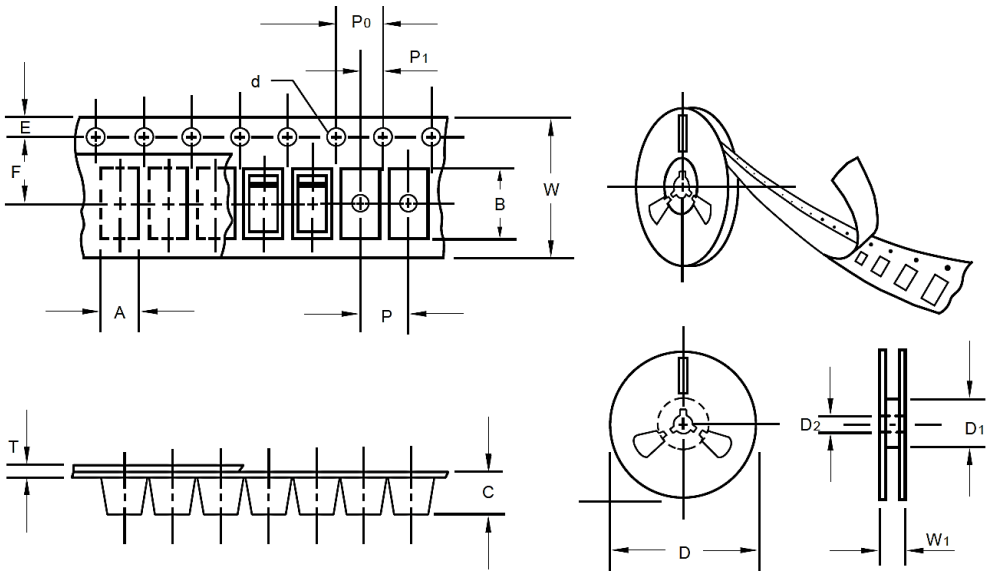


SUGGESTED REFLOW PROFILE - For Reference Only



PROFILE FEATURE		PB-FREE ASSEMBLY
Average Ramp-up Rate (T_L Max to T_p)		3°C/second Max
Preheat	Temperature Min (T_s Min.)	150°C
	Temperature Max (T_s Max.)	200°C
	Time (t_s Min. to t_s Max.)	60 ~ 180 seconds
Time maintained above	Temperature (T_L)	217°C
	Time (t_L)	60 ~ 150 seconds
Peak/Classification Temperature (T_p)		260 °C
Time within 5°C of actual Peak Temperature (t_p)		10 seconds Max.
Ramp-down Rate		6 °C /Second Max.
Time 25 °C to Peak Temperature		8 Minutes Max.
Suggest reflow times		3 Times Max.

TAPE/REEL - Unit: mm, All Devices are packed in accordance with EIA standard RS-481-A and specifications



ITEM	SYMBOL	TOLERANCE	SOD-523
Carrier width	A	0.1	2.10
Carrier Length	B	0.1	4.00
Carrier Depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7”Reel outside diameter	D	2	178
7”Reel inner diameter	D1	Min.	50
Feed hole diameter	D2	0.5	13
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.5
Punch hole pitch	P	0.1	4
Sprocket hole pitch	P0	0.1	4
Embossment center	P1	0.1	2
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	8.15
Reel width	W1	1	10.50
Qty. Per Reel (pcs)	3000		

IMPORTANT NOTES AND DISCLAIMER

1. ROHS COMPLIANCE: The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU RoHS Directive (EU) 2015/863 EC (RoHS3). RoHS Test Report for this product can be obtained can be obtained at Download Center.
2. REACH COMPLIANCE: REACH substances of high concern (SVHCs) information is available for this product. Since the European Chemical Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, REACH Test Report for this product can be obtained can be obtained at Download Center.
3. All Product parametric performance is indicated in the Electrical Characteristics for the listed herein test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.
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