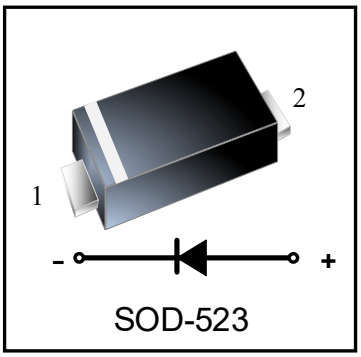
WSR4003D5-AT

Features

Schottky Barrier Diode

- Low Forward Voltage Drop
- Very Small SMD Package
- AEC-Q101 Qualified
- Device meets MSL1 requirement



SOD-523

Applications

- Low Voltage Rectification
- High Efficiency DC/DC Conversion
- Switch Mode Power Supply
- Inverse Polarity Protection
- Low Power Consumption Applications

Absolute Maximum Rating

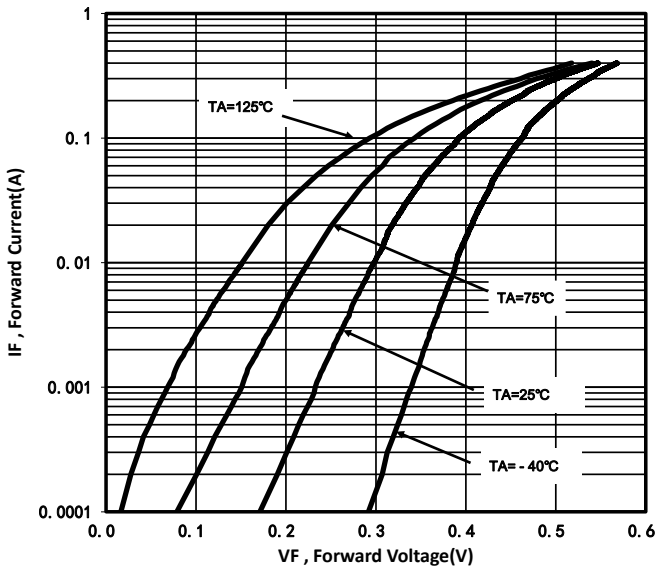
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum Average Forward Rectified Current	I_{FM}	350	mA
Non-Repetitive Peak Forward Surge Current @ t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics (T_{amb}=25°C unless otherwise noted)

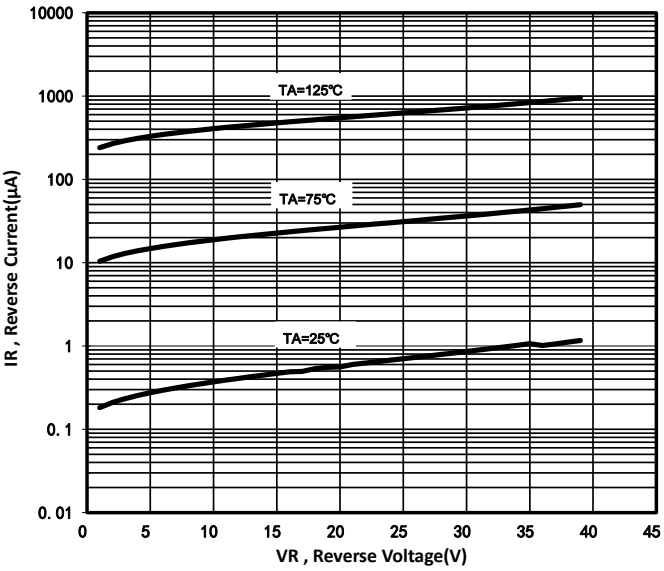
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Current	I_R	V_R = 30V	-	-	5.0	μA
Forward Voltage	V_F	I_F = 20mA	-	-	0.37	V
		I_F = 200mA	-	-	0.60	
Typical Junction Capacitance	C_J	V_R= 4V, f=1.0MHz	-	-	50	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=200mA,I_{rr}=0.1I_R, R_L=100Ω	-	-	10	ns

Typical Characteristics

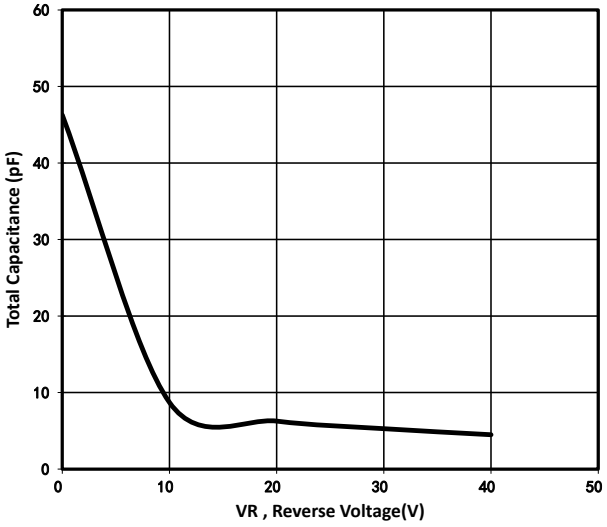
Forward Characteristics



Reverse Characteristics

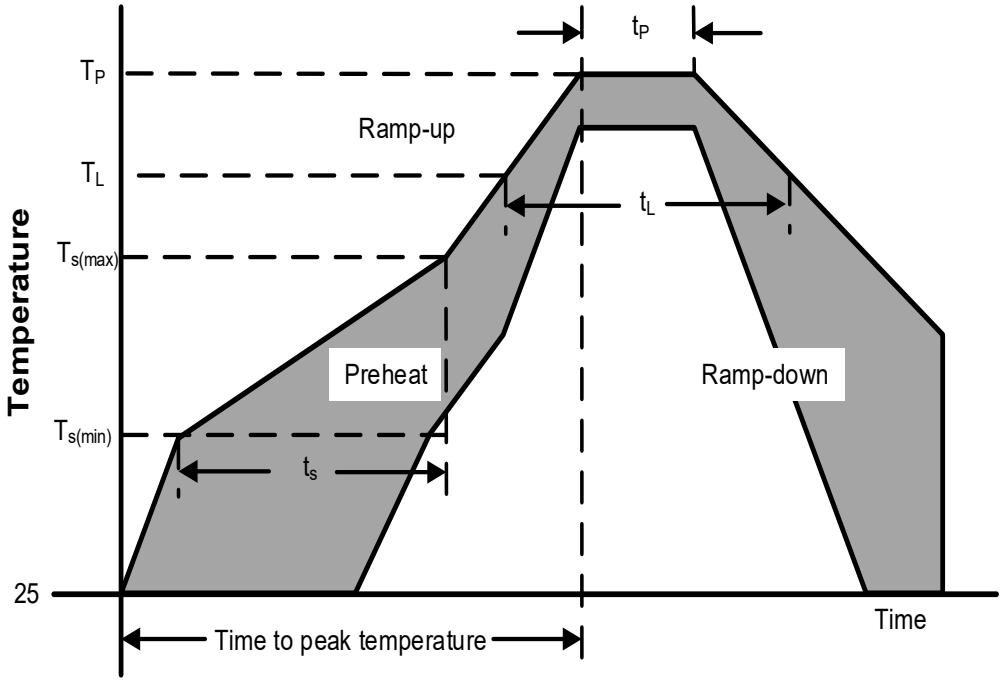


Total Capacitance vs. Reverse Voltage



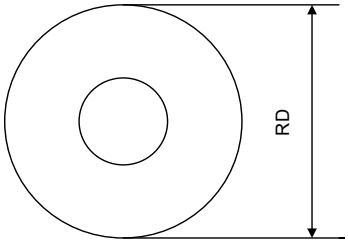
Soldering Parameters

Reflow Condition		Pb – Free assembly
Pre Heat	Temperature Min ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (ts)	60 – 190 secs
Average ramp up rate (Liquidus Temp) (T_L) to peak		5°C/second max
$T_{S(max)}$ to T_L——Ramp-up Rate		5°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_P)		260+0/-5 °C
Time within actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		5°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max.
Do not exceed		280°C

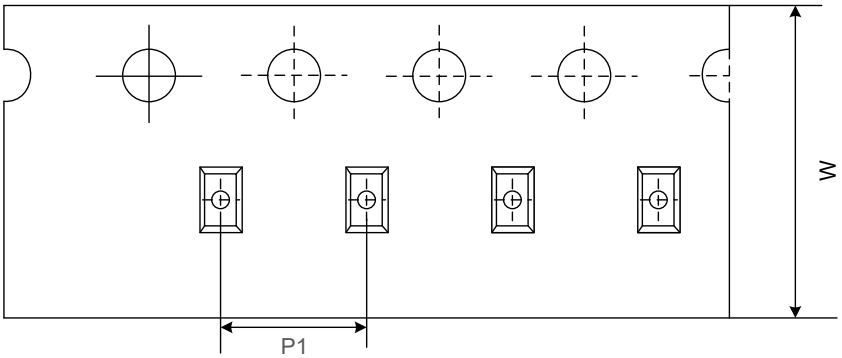


Tape And Reel Information

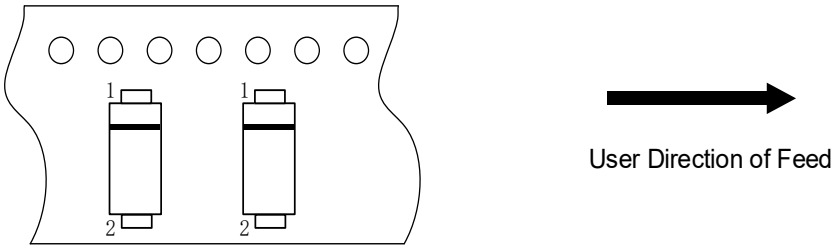
Reel Dimensions



Tape Dimensions



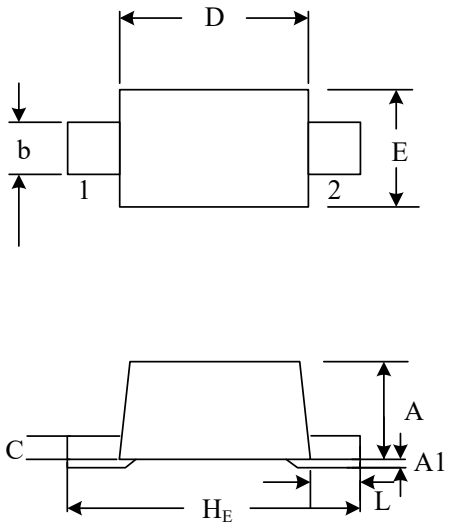
Quadrant Assignments For PIN1 Orientation In Tape

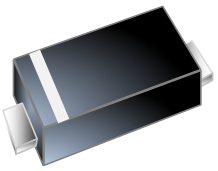


RD	Reel Dimensions	7 inch
W	Overall width of the carrier tape	8 mm
P1	Pitch between successive cavity centers	2mm

Outline Drawing –SOD-523

PACKAGE OUTLINE

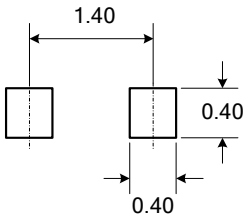




SOD-523

DIMENSIONS

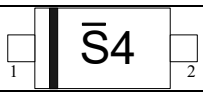
SYMBOL	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.70	0.020	0.028
A1	0.00	0.07	0.000	0.003
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.003	0.008
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H_E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010



DIMENSIONS: MILLIMETERS

Notes:
Controlling Dimension: Millimeter.

Marking Codes

Part Number	Marking Code
WSR4003D5-AT	

Package Information

Qty：5k/Reel

CONTACT INFORMATION

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WAYON website: **http://www.way-on.com**

For additional information, please contact your local Sales Representative.

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Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.