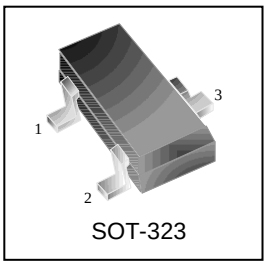
WSR3002W3-AT

Schottky Barrier Diode

Features

- Low Current Leakage
- Low Forward Voltage
- AEC-Q101 Qualified



SOT-323

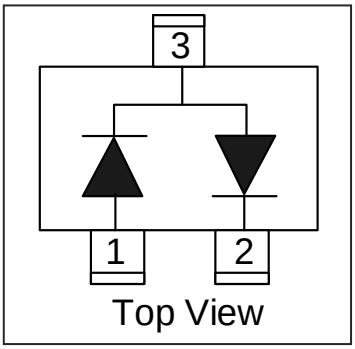
Mechanical Characteristics

- SOT-323 package
- Marking: Marking Code
- Packaging: Tape and Reel
- RoHS Compliant & HF & Pb Free
- Device meets MSL1 requirement

Applications

- Fast Switching RF and Digital Applications
- Switch Mode Power Supply
- Inverse Polarity Protection
- Low Power Consumption Applications

Schematic & PIN Configuration



Top View

Absolute Maximum Rating (T_{amb}=25°C unless otherwise noted)

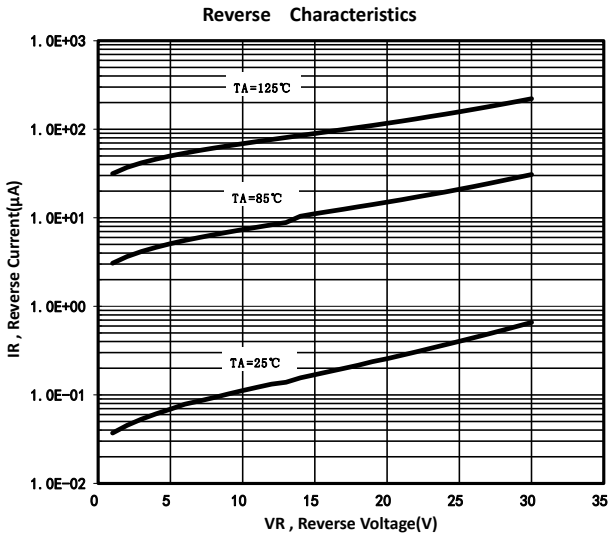
Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	30	V
Forward Current	I_F	200	mA
Power Dissipation	P_D	200	mW
Peak Forward Surge Current @ t_p=10ms	I_{FSM}	600	mA
Peak Repetitive Forward Current	I_{FRM}	300	mA
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction Temperature	T_J	125	°C
Storage Temperature	T_{stg}	-65 to 150	°C

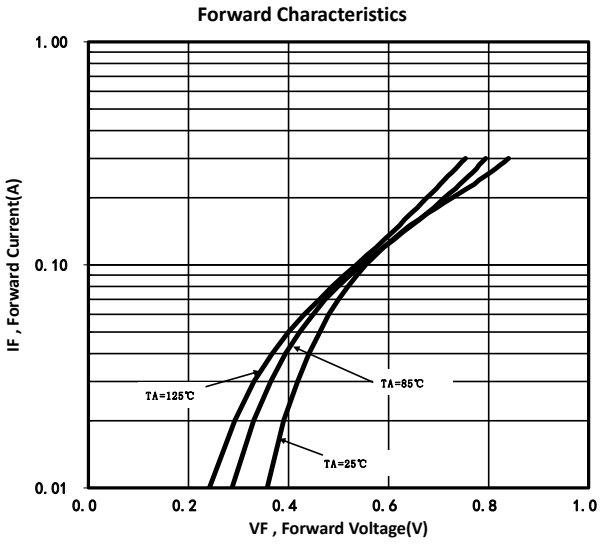
©2023 WAYON Corporation

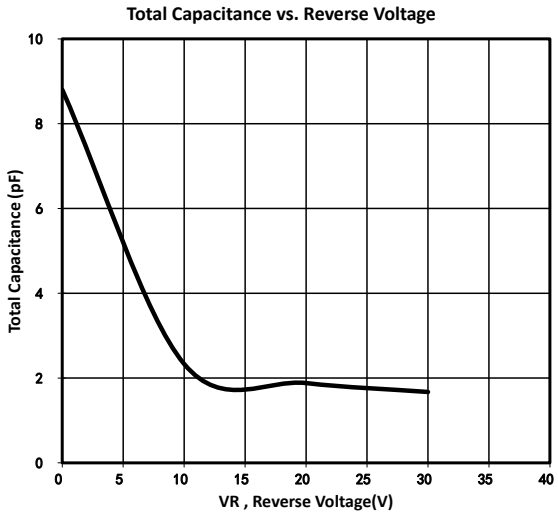
Electrical Characteristics (T_{amb}=25°C unless otherwise noted)

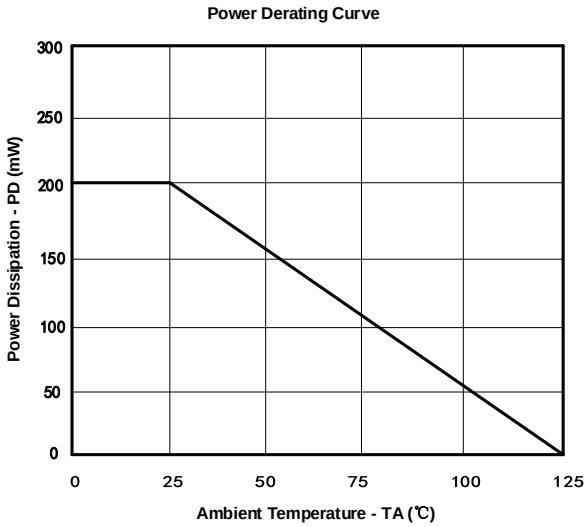
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V_{BR}	I_R = 100μA	30	-	-	V
Reverse Current	I_R	V_R = 25V	-	-	2	μA
Forward Voltage	V_F	I_F = 0.1mA	-	-	0.24	V
		I_F = 1mA	-	-	0.32	
		I_F = 10mA	-	-	0.40	
		I_F = 30mA	-	-	0.50	
		I_F = 100mA	-	-	1.00	
Typical Junction Capacitance	C_J	V_R= 1V, f=1.0MHz	-	-	10	pF
Reverse Recovery Time	T_{rr}	I_F=I_R=10mA, I_R=1mA, R_L=100Ω	-	-	5	ns

Typical Characteristics



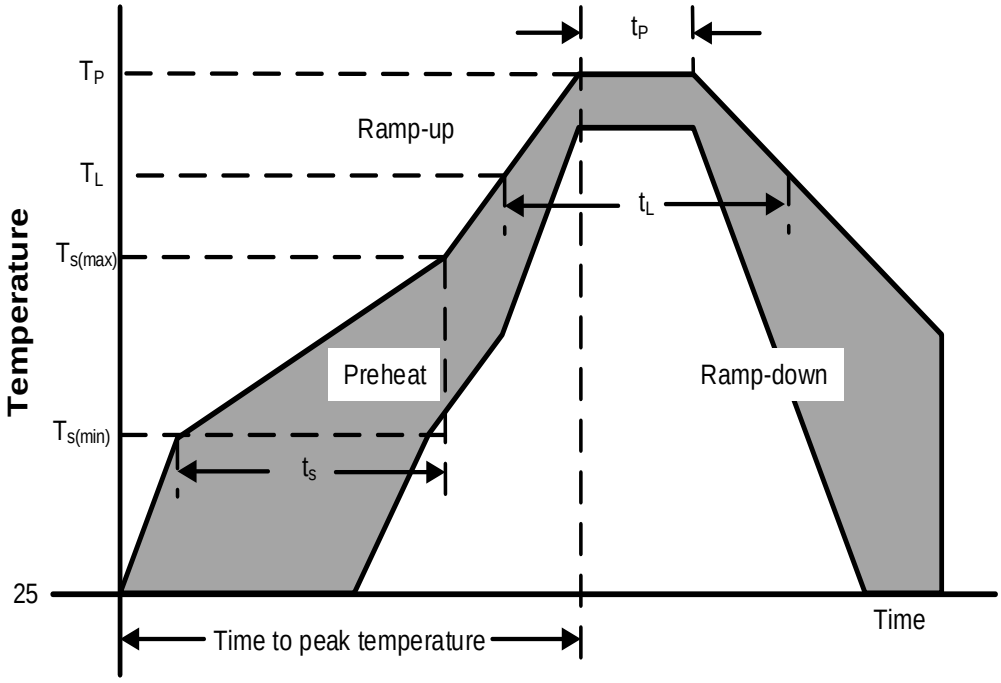






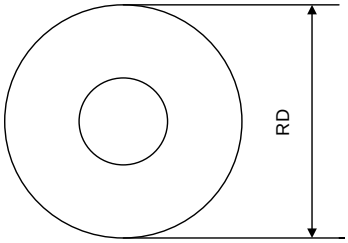
Soldering Parameters

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

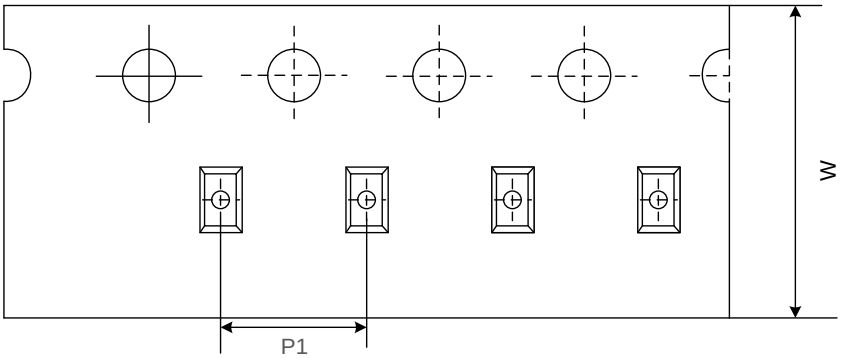


Tape And Reel Information

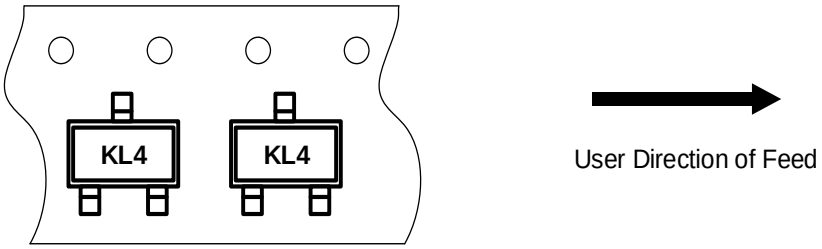
Reel Dimensions



Tape Dimensions



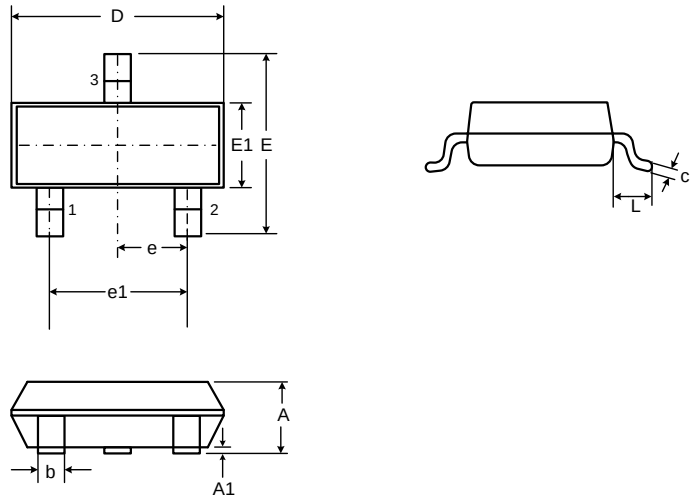
Quadrant Assignments For PIN1 Orientation In Tape

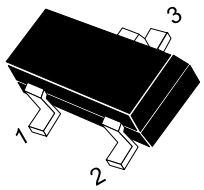


RD	Reel Dimensions	7 inch
W	Overall width of the carrier tape	8 mm
P1	Pitch between successive cavity centers	4mm

Outline Drawing –SOT-323

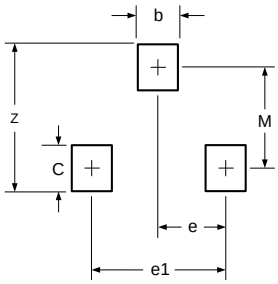
PACKAGE OUTLINE





SOT-323

DIMENSIONS				
SYMBOL	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.90	1.10	0.035	0.043
A1	0.00	0.10	0.000	0.004
b	0.20	0.40	0.008	0.016
c	0.08	0.15	0.003	0.006
D	2.00	2.20	0.079	0.087
E	2.15	2.45	0.085	0.096
E1	1.15	1.35	0.045	0.053
e	0.65TYP		0.026TYP	
e1	1.20	1.40	0.047	0.055
L	0.525REF		0.021REF	



DIMENSIONS		
DIM	INCHES	MILLIMETERS
M	0.075	1.90
C	0.035	0.90
Z	0.110	2.80
e	0.025 BSC	0.65 BSC
e1	0.051BSC	1.3 BSC
b	0.024	0.60

Notes

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Pin 3 is the cathode (Unidirectional Only).
4. Dimensions are exclusive of mold flash and metal burrs.

Marking Codes

Part Number	WSR3002W3-AT
Marking Code	KL4

Package Information

Qty：3k/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.