



BAT46WS

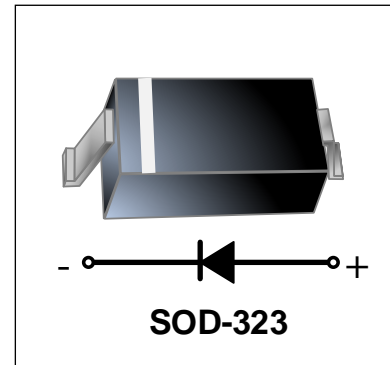
Schottky Barrier Diode

Features

- Low Forward Voltage Schottky Rectifier
- High Reliability

Applications

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



Absolute Maximum Rating

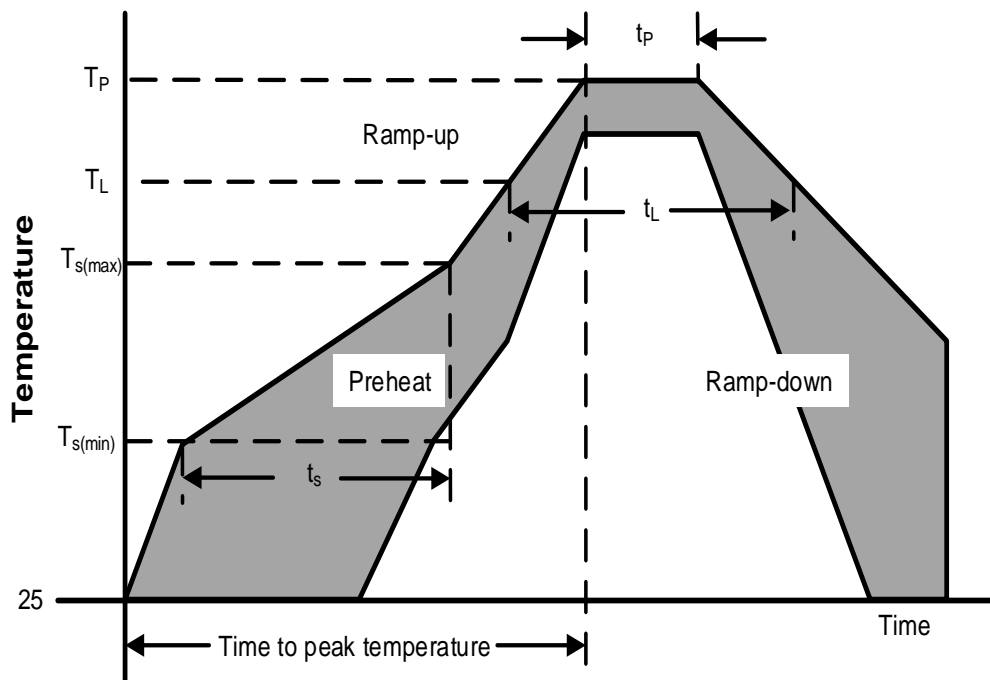
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Forward Continuous Current	I_F	150	mA
Peak Forward Surge Current@8.3ms Half Sine	I_{FSM}	750	mA
Junction Temperature	T_J	125	°C
Storage Temperature	T_{stg}	-55 to +150	°C
Power Dissipation	P_D	500	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	200	°C /W

Electrical Characteristics ($T_{amb}=25^{\circ}C$ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V_{BR}	$I_R = 100\mu A$	100	-	-	V
Reverse Voltage Leakage Current	I_R	$V_R = 1.5V$	-	-	0.3	μA
		$V_R = 10V$	-	-	0.5	
		$V_R = 50V$	-	-	1.0	
		$V_R = 75V$	-	-	2.0	
Forward Voltage	V_F	$I_F = 0.1mA$	-	-	0.25	V
		$I_F = 10mA$	-	-	0.45	
		$I_F = 250mA$	-	-	1.00	
Diode Capacitance	C_T	$V_R=0, f=1MHz$	-	20	-	pF
		$V_R=1V, f=1MHz$	-	12	-	

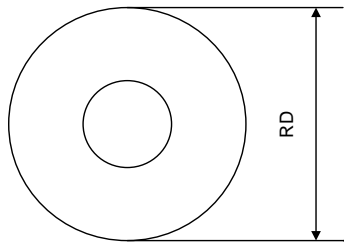
Soldering Parameters

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) (t_s)	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

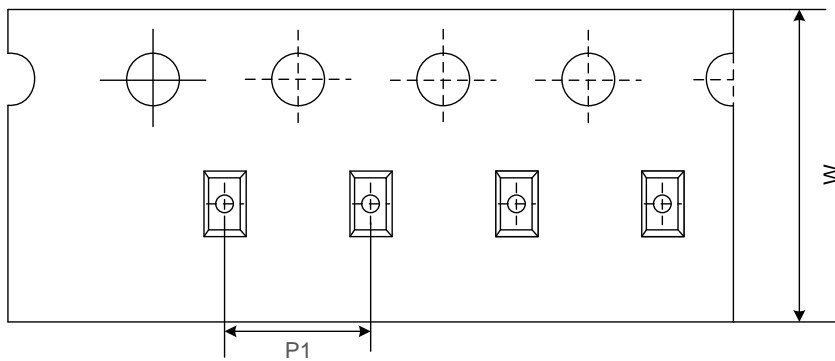


Tape And Reel Information

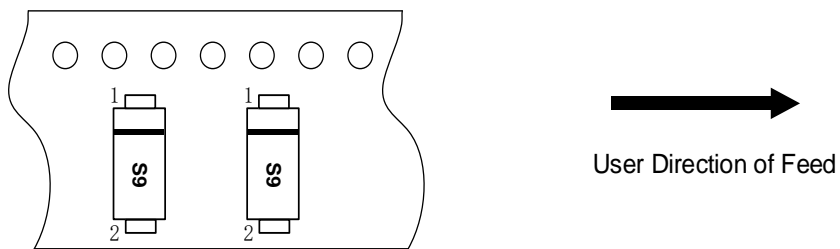
Reel Dimensions



Tape Dimensions

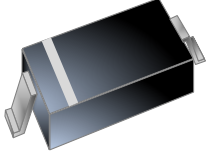


Quadrant Assignments For PIN1 Orientation In Tape



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

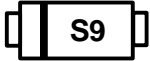
Outline Drawing – SOD-323

PACKAGE OUTLINE				
 SOD-323				
DIMENSIONS				
SYMBOL	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.52	1.80	0.060	0.071
B	0.25	0.40	0.010	0.016
C	2.46	2.71	0.097	0.107
D	0.80	1.16	0.031	0.046
E	1.11	1.40	0.044	0.055
F	0.08	0.20	0.003	0.008
L	0.475 REF		0.019REF	
L1	0.25	0.40	0.010	0.016
H	0.00	0.10	0.000	0.004

MOUNTING PAD	

Notes:	
Controlling Dimension: Millimeter.	

Marking Codes

Part Number	BAT46WS
Marking Code	

Package Information

Qty: 3k/Reel

CONTACT INFORMATION

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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.*