



BAT46WT

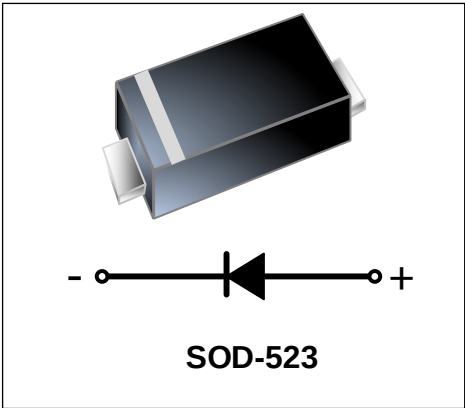
Schottky Barrier Diode

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

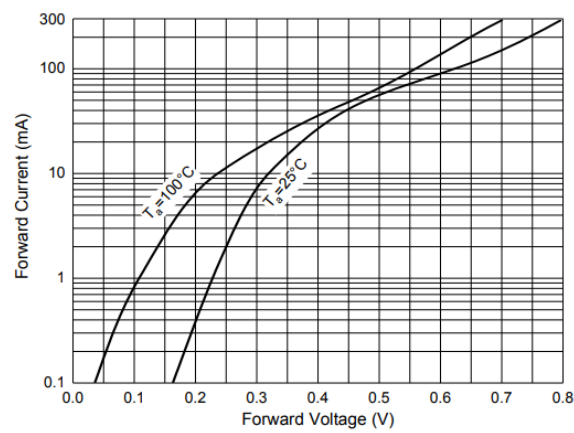
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Forward Continuous Current	I_F	200	mA
Peak Forward Surge Current@8.3ms Half Sine	I_{FSM}	1.0	A
Junction Temperature	T_J	125	°C
Storage Temperature	T_{stg}	-55 to +150	°C
Power Dissipation	P_D	500	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	200	°C /W

Electrical Characteristics (Tamb=25°C unless otherwise noted)

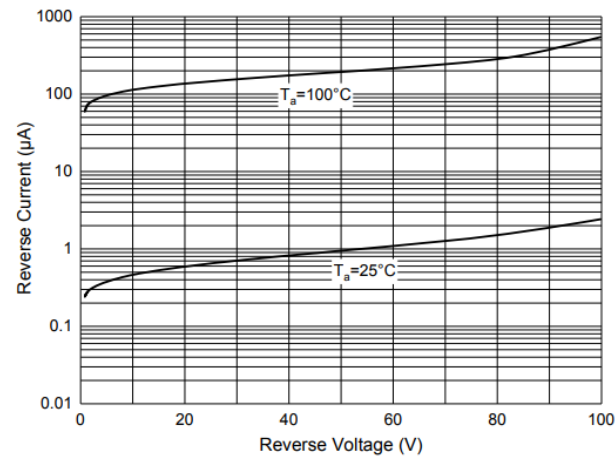
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V_{BR}	$I_R = 100\mu A$	100	-	-	V
Reverse Voltage Leakage Current	I_R	$V_R = 1.5V$	-	-	0.3	μA
		$V_R = 10V$	-	-	0.5	
		$V_R = 50V$	-	-	1.0	
		$V_R = 75V$	-	-	2.0	
Forward Voltage	V_F	$I_F = 0.1mA$	-	-	0.25	V
		$I_F = 10mA$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

Typical Characteristics

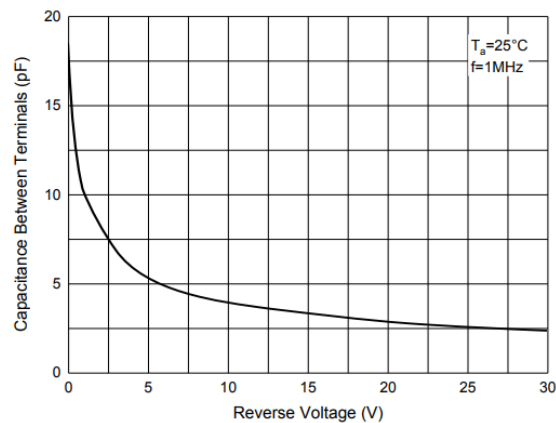
Forward Characteristics



Reverse Characteristics

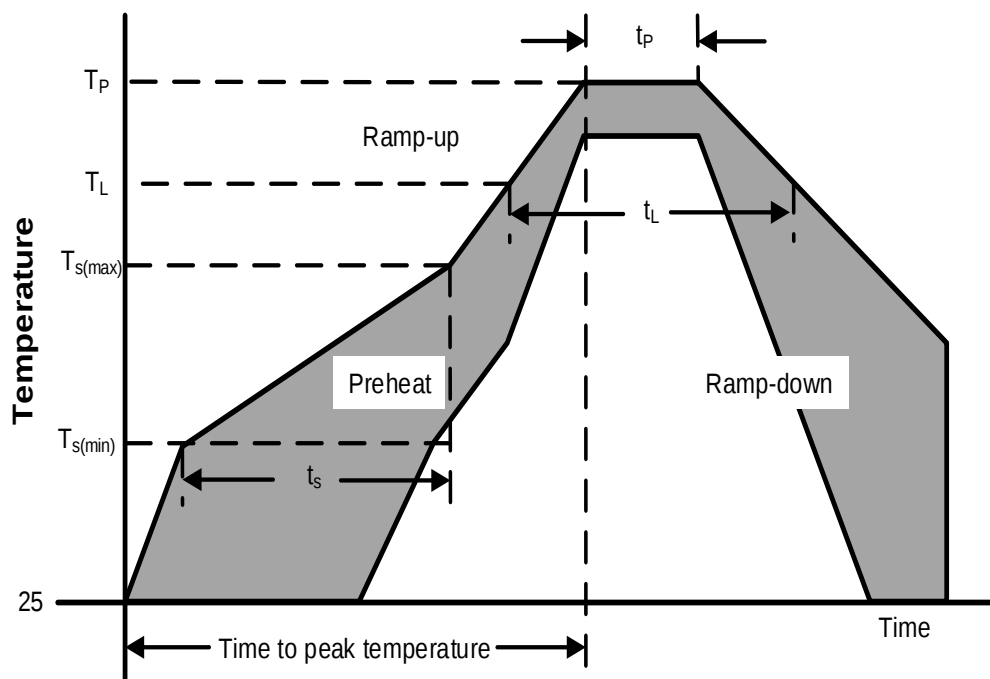


Capacitance Characteristics

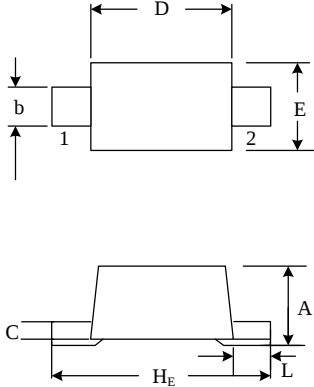
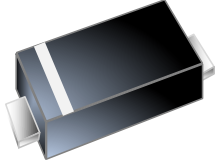


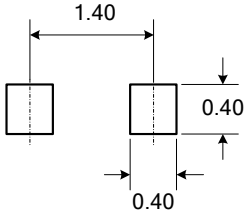
Soldering Parameters

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) (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



Outline Drawing –SOD-523

PACKAGE OUTLINE 	 SOD-523																										
	<table><tr><th rowspan="2">SYMBOL</th><th colspan="2">MILLIMETERS</th></tr><tr><th>MIN</th><th>MAX</th></tr><tr><td>A</td><td>0.50</td><td>0.77</td></tr><tr><td>b</td><td>0.25</td><td>0.35</td></tr><tr><td>C</td><td>0.07</td><td>0.20</td></tr><tr><td>D</td><td>1.10</td><td>1.30</td></tr><tr><td>E</td><td>0.70</td><td>0.90</td></tr><tr><td>H_E</td><td>1.50</td><td>1.70</td></tr><tr><td>L</td><td>0.15</td><td>0.25</td></tr></table>		SYMBOL	MILLIMETERS		MIN	MAX	A	0.50	0.77	b	0.25	0.35	C	0.07	0.20	D	1.10	1.30	E	0.70	0.90	H _E	1.50	1.70	L	0.15
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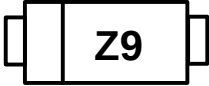


DIMENSIONS: MILLIMETERS

Notes:

Controlling Dimension: Millimeter.

Marking Codes

Part Number	BAT46WT
Marking Code	

Package InformationA

Qty: 5k/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.