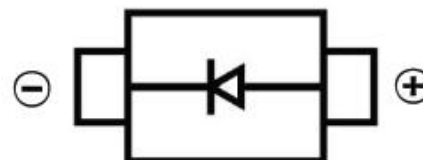


**Kingtronics**®**BAT54WS****SCHOTTKY BARRIER  
DIODE****FEATURES**

Low Forward Voltage  
Fast Switching  
Surface Mount device  
For Low Current Rectifier Circuits Applications

**MECHANICAL DATA**

Case: SOD-323  
Case Material: Molded Plastic. UL flammability  
Classification Rating: 94V-0  
Moisture Sensitivity: Level 1 per J-STD-020  
Weight: 0.005 grams (approximate)

**SOD-323****MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$  unless otherwise noted)**

PARAMETER	SYMBOL	VALUE	UNIT
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	30	V
Reverse Voltage	$V_R$	21	V
Forward Current	$I_F$	200	mA
Repetitive Peak Forward Current	$I_{FRM}$	300	mA
Non-Repetitive Peak Forward Surge Current @ $t = 8.3\text{ ms}$	$I_{FSM}$	0.6	A
Power Dissipation	$P_D$	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Junction Temperature	$T_J$	125	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55~+150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$  unless otherwise specified)**

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITION
Reverse breakdown voltage	$V_{(BR)}$	30		V	$I_R=100\mu\text{A}$
Forward voltage	$V_F$		1000	mV	$I_F=100\text{mA}$
Reverse voltage leakage current	$I_R$		2	$\mu\text{A}$	$V_R=25\text{V}$
Diode capacitance	$C_D$		10	pF	$V_R=1\text{V}, f=1\text{MHz}$
Reverse recovery time	$T_{rr}$		5	nS	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R$ $R_L=100\ \Omega$

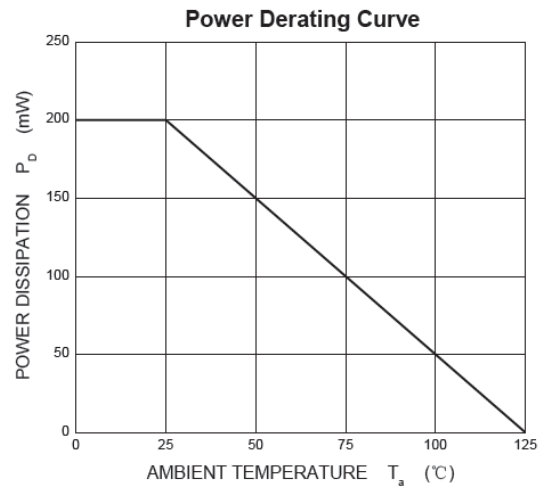
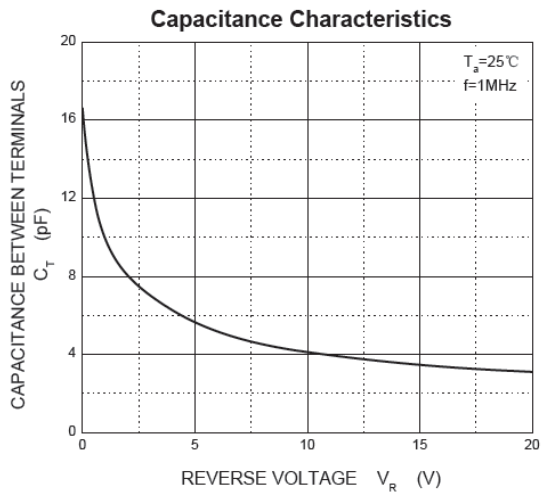
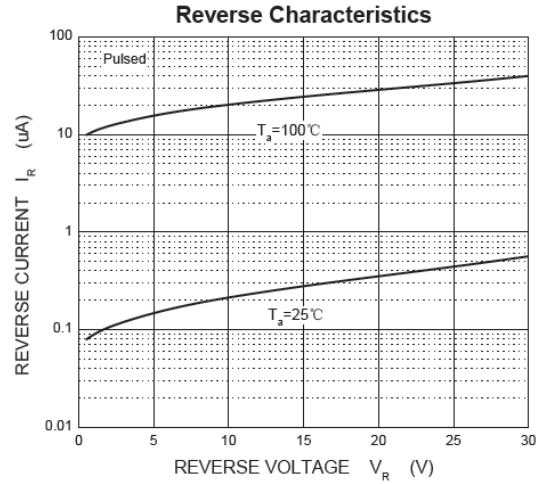
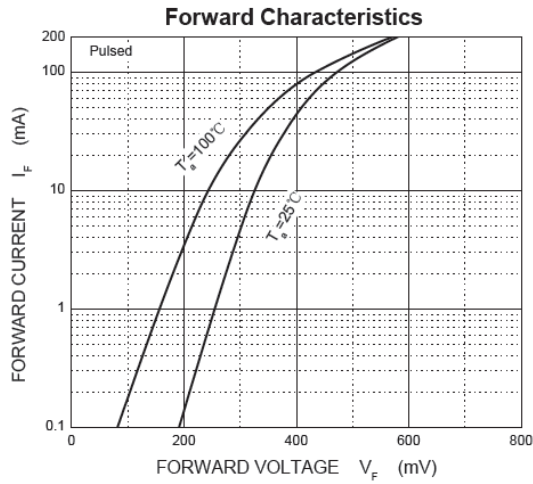
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## BAT54WS

### SCHOTTKY BARRIER DIODE

## Typical Characteristics



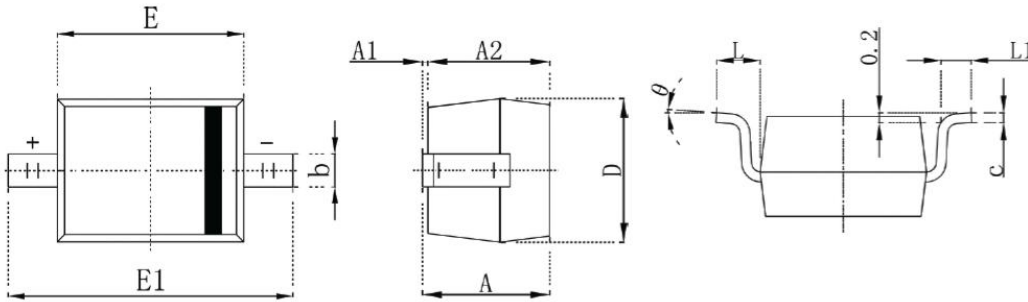
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## BAT54WS

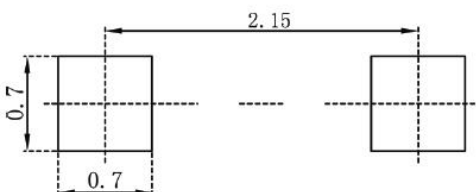
### SCHOTTKY BARRIER DIODE

### SOD-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.250	2.750	0.100	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

### SOD-323 Suggested Pad Layout



**Note:**

1. Controlling dimension: in millimeters
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

Note: Specifications are subject to change without notice.

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