

# BAT54WS

## 200mWatt, 30Volt Schottky Barrier Diode

### Features

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- High Reliability
- Low Forward Voltage and Low Reverse Current
- Small Surface Mount Type
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

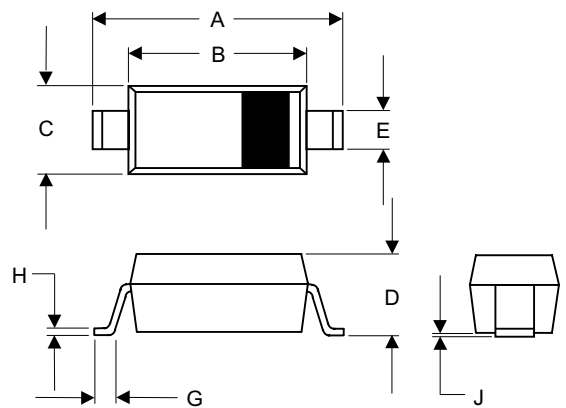
### Maximum Ratings

Continuous Reverse Voltage	$V_R$	30V
Continuous Forward Current	$I_F$	200mA
Total Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	200mW 1.8mW/ $^\circ\text{C}$
Junction Temperature	$T_j$	125 $^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 $^\circ\text{C}$ to 125 $^\circ\text{C}$
Device Marking : L9/JV		

### Electrical Characteristics @ 25 $^\circ\text{C}$ Unless Otherwise Specified

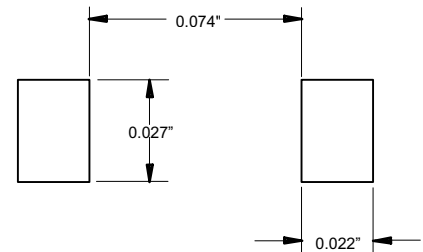
Ratings	Symbol	Max.	Notes
Forward Voltage at $I_F = 0.1\text{mA}$ $I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 30\text{mA}$ $I_F = 100\text{mA}$	$V_F$	240mV 370mV 400mV 500mV 1000mV	
Reverse Current	$I_R$	0.2 $\mu\text{A}$ 0.5 $\mu\text{A}$	$V_R = 25\text{V}$ $V_R = 30\text{V}$
Capacitance	$C_J$	2.0pF	Measured at 1.0MHz, $V_R=1.0\text{V}$
Reverse Breakdown Voltage	$V_{(BR)}$	>30V	
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500K/W	

### SOD-323

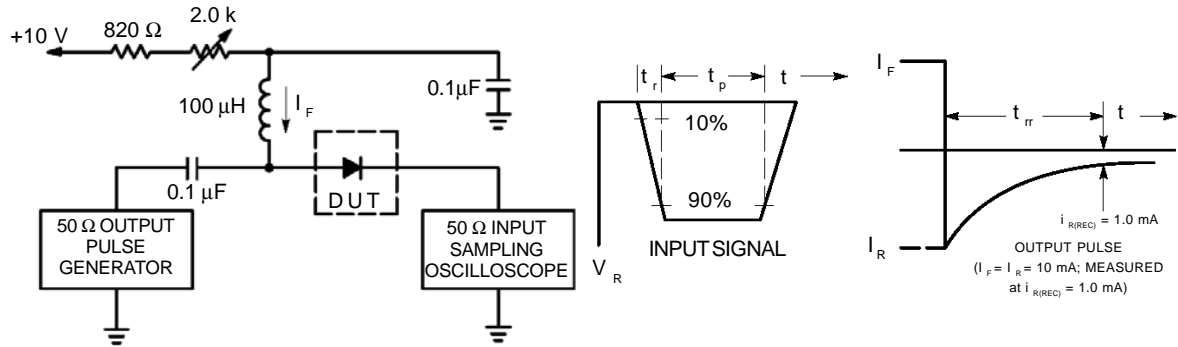


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	-----	.006	-----	0.15	

### SUGGESTED SOLDER PAD LAYOUT



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- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current ( $I_F$ ) of 10mA.  
 2. Input pulse is adjusted so  $I_{R(peak)}$  is equal to 10mA.  
 3.  $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

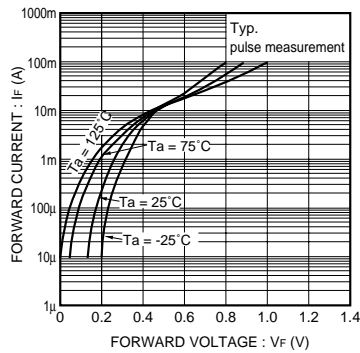


Fig. 2 Forward characteristics

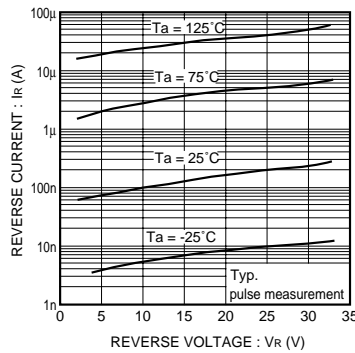


Fig. 3 Reverse characteristics

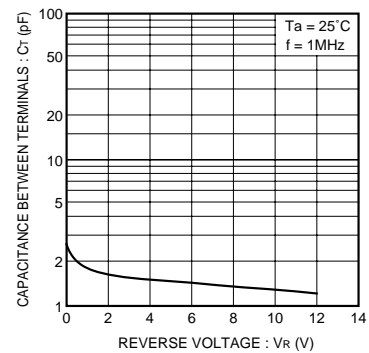


Fig. 4 Capacitance between terminals characteristics



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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