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# BAT54 THRU BAT54S

## Features

- Low Forward Voltage
- Surface Mount device
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Number	Device Marking		Type	Pin Configuration See page 3
	1	2		
BAT54	KL1	L4	Single	Figure 1
BAT54A	KL2	L42	Dual	Figure 2
BAT54C	KL3	L43	Dual	Figure 3
BAT54S	KL4	L44	Dual	Figure 4

## Maximum Ratings

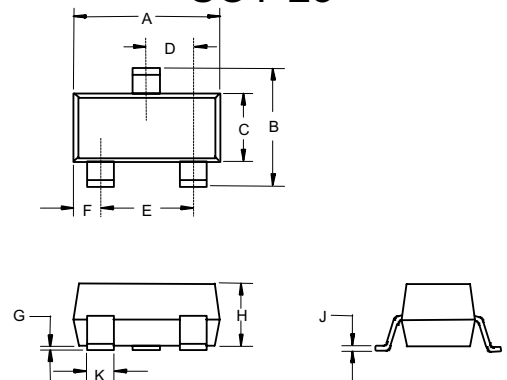
Continuous Reverse Voltage	$V_R$	30V
Forward Continuous Current	$I_F$	200mA
Non-Repetitive Peak Forward Current $t < 1s$	$I_{FSM}$	0.6A
Total Power Dissipation @ $T_A = 25^\circ C$	$P_D$	200mW
Storage Temperature Range	$T_{stg}$	$-55^\circ C$ to $150^\circ C$
Operating Junction Temperature Range	$T_j$	$-55^\circ C$ to $125^\circ C$
Soldering temperature during 10s	T	$260^\circ C$

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

Characteristics	Symbol	Max.	Notes
Forward Voltage at $I_F = 0.1mA$ $I_F = 1mA$ $I_F = 10mA$ $I_F = 30mA$ $I_F = 100mA$	$V_F$	240mV 320mV 400mV 500mV 1000mV	
Reverse Current	$I_R$	2.0 $\mu A$	$V_R = 25V$
Capacitance	$C_J$	10pF	Measured at 1.0MHz, $V_R = 1.0V$
Reverse Recovery Time	$t_{rr}$	5nS	$I_F = I_R = 10mA$ ; $I_{(REC)} = 1mA$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	$500^\circ C/W$	

## 200mWatt, 30Volt Schottky Barrier Diode

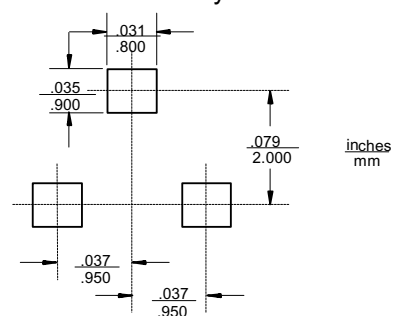
### SOT-23



#### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

### Suggested Solder Pad Layout



# BAT54 thru BAT54S

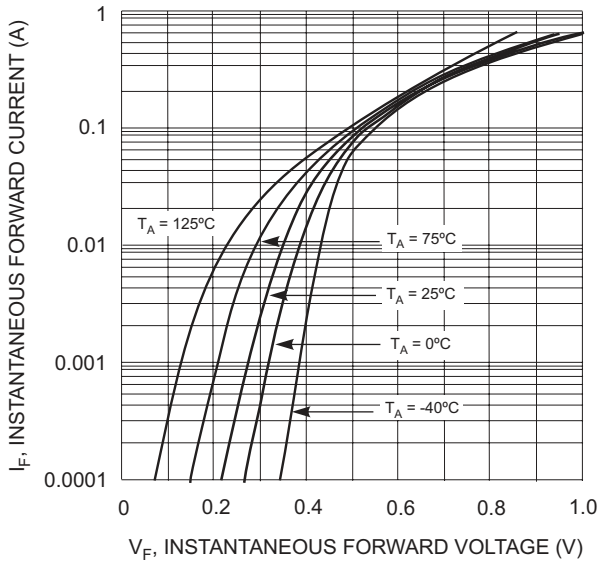


Fig. 1 Forward Characteristics

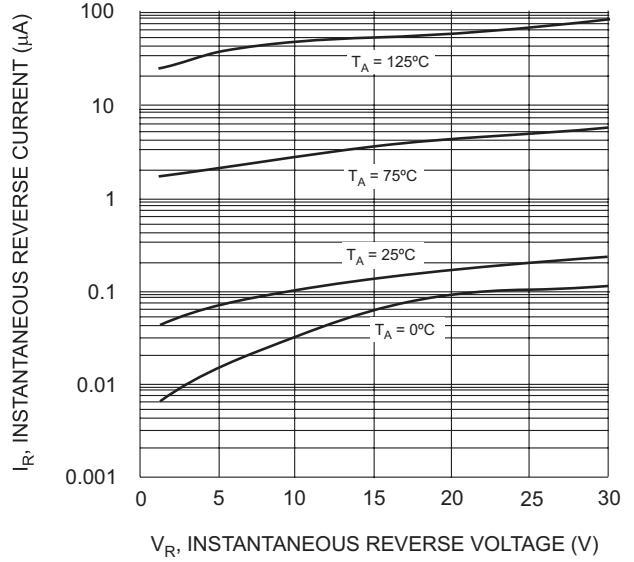


Fig. 2 Typical Reverse Characteristics

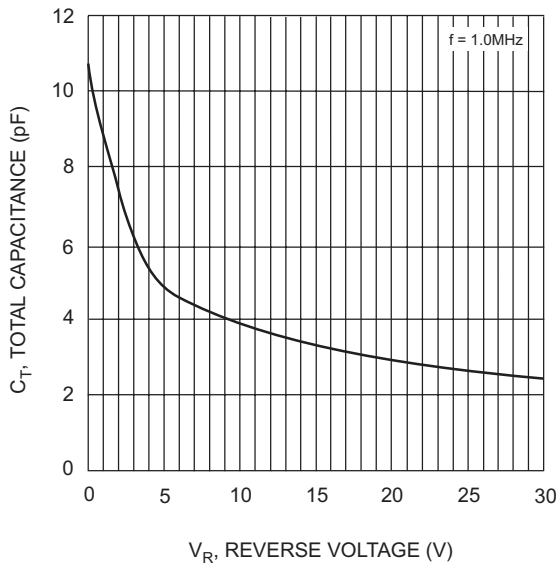


Fig. 3 Typical Capacitance vs. Reverse Voltage

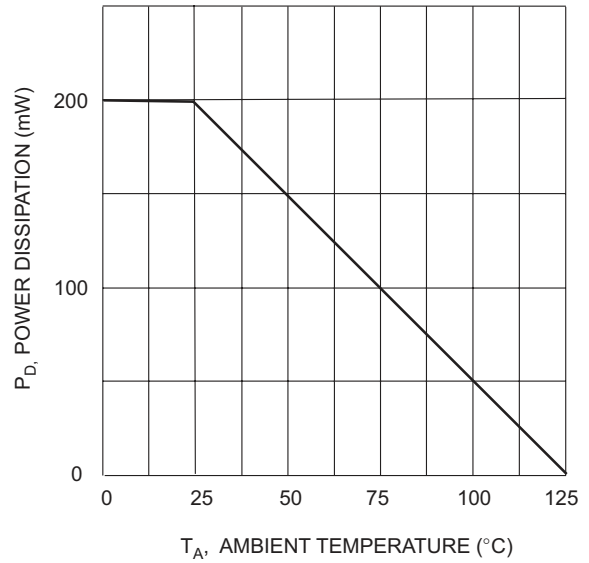


Fig. 4 Power Derating Curve

## Pin Configuration - Top View

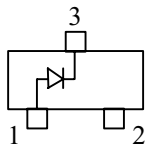


Figure 1

BAT54

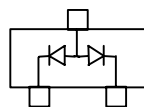


Figure 2

BAT54A

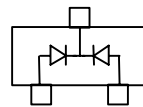


Figure 3

BAT54C

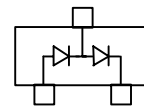


Figure 4

BAT54S