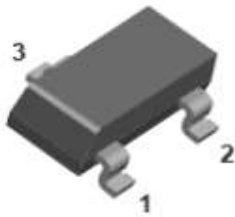


## Schottky Barrier Diode



### Features

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

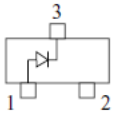


Figure 1

BAT54

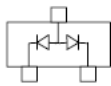


Figure 2

BAT54A

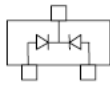


Figure 3

BAT54C

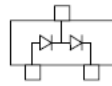


Figure 4

BAT54S

### Marking

BAT54	KL1
BAT54A	KL2
BAT54C	KL3
BAT54S	KL4

### ■ Maximum Rating, ( $T_A=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Value
Continuous Reverse Voltage	$V_R$	V	30
Forward Continuous Current	$I_F$	mA	200
Non-Repetitive Peak Forward Surge Current @ $t<1\text{s}$	$I_{FSM}$	A	0.6
Total Power Dissipation @ $T_A=25^{\circ}\text{C}$	$P_D$	mW	200
Thermal Resistance, Junction to Ambient	$R_{thJA}$	$^{\circ}\text{C}/\text{W}$	500
Operation Junction Temperature	$T_J$	$^{\circ}\text{C}$	-55 to +125
Storage Temperature	$T_{STG}$	$^{\circ}\text{C}$	-55 to +125
Soldering temperature during 10s	$T_J$	$^{\circ}\text{C}$	260

### ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAT54	F2	Approximate 0.008	3000	30000	120000	7" reel
BAT54A	F2	Approximate 0.008	3000	30000	120000	7" reel
BAT54C	F2	Approximate 0.008	3000	30000	120000	7" reel
BAT54S	F2	Approximate 0.008	3000	30000	120000	7" reel

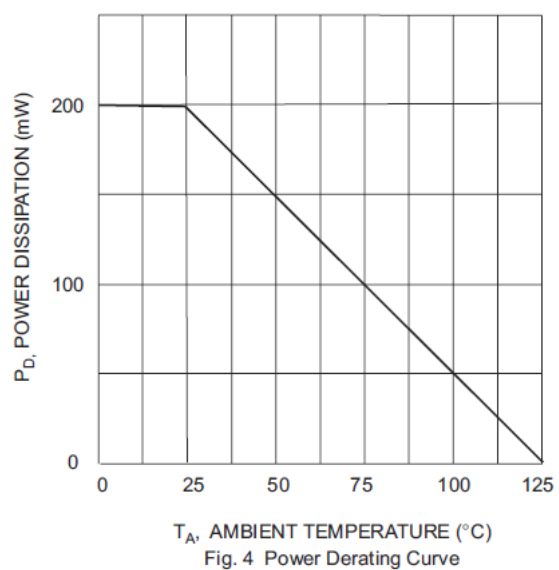
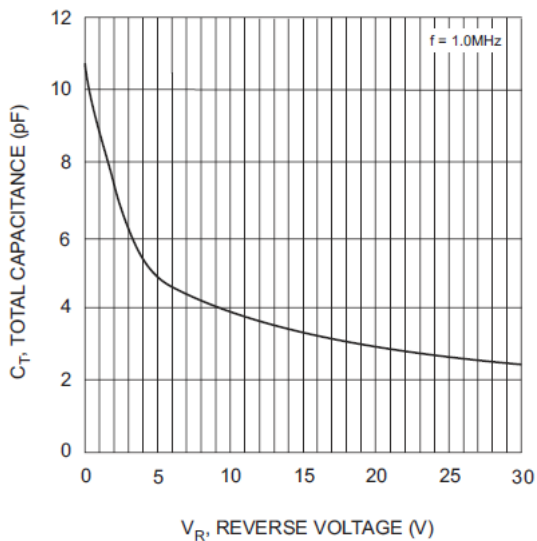
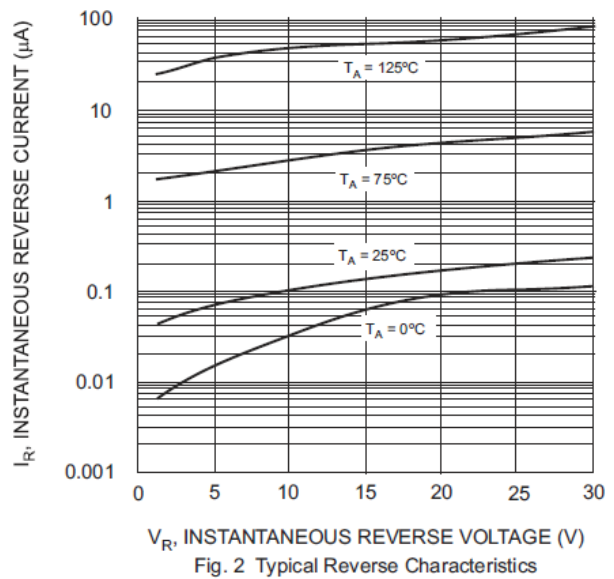
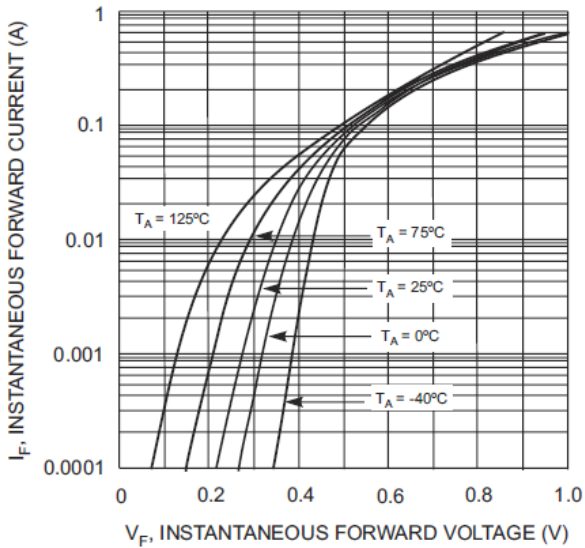


# BAT54 THRU BAT54S

## ■ Electrical Characteristics ( $T_A=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Maximum Instantaneous Forward Voltage	$V_F$	V	$I_{FM}=0.1\text{mA}$	0.24
			$I_{FM}=1\text{mA}$	0.32
			$I_{FM}=10\text{mA}$	0.4
			$I_{FM}=30\text{mA}$	0.5
			$I_{FM}=100\text{mA}$	1
Maximum DC Reverse Current	$I_R$	$\mu\text{A}$	$V_R=25\text{V}$	2
Typical Junction Capacitance	$C_J$	pF	$f=1.0\text{MHz}$ , $V_R=1.0\text{V}$	10
Reverse Recovery Time	$T_{rr}$	ns	$I_F=I_R=10\text{mA}$ , $I_{(REC)}=1\text{mA}$	5

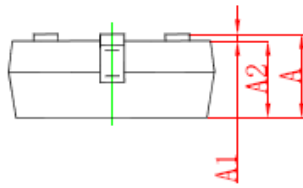
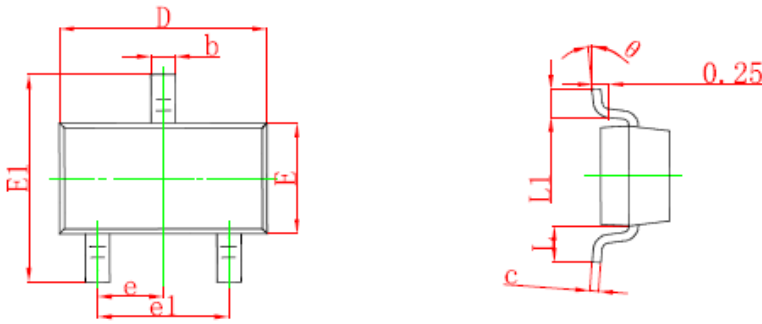
## ■ Typical Characteristics





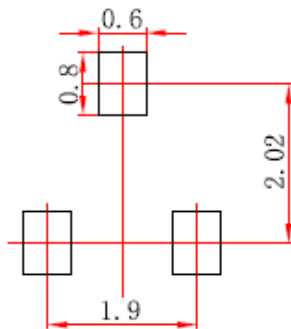
# BAT54 THRU BAT54S

## ■SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

## ■SOT-23 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.



## BAT54 THRU BAT54S

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