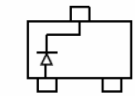
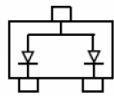


**SOT-23 Plastic-Encapsulate Diodes**
**BAT54/A/C/S SCHOTTKY BARRIER DIODE**
**SOT-23**
**FEATURES**

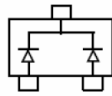
- Extremely Fast Switching Speed



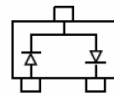
BAT54 MARKING: KL1



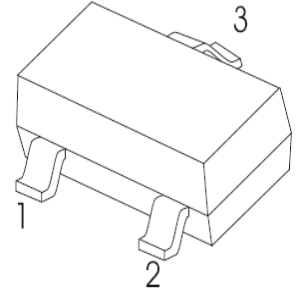
BAT54A MARKING: KL2



BAT54C MARKING: KL3



BAT54S MARKING: KL4


**MARKING:**

BAT54	BAT54A	BAT54C	BAT54S

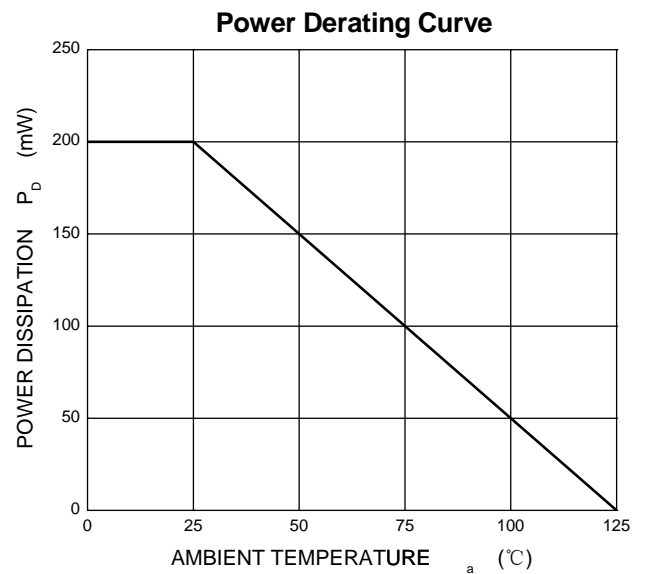
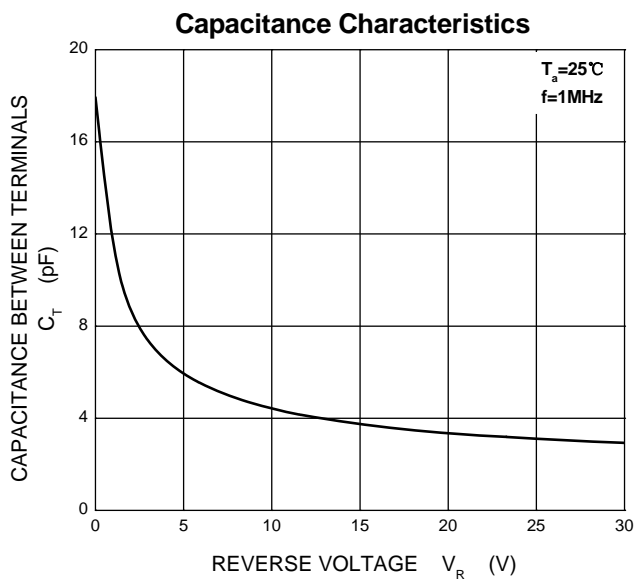
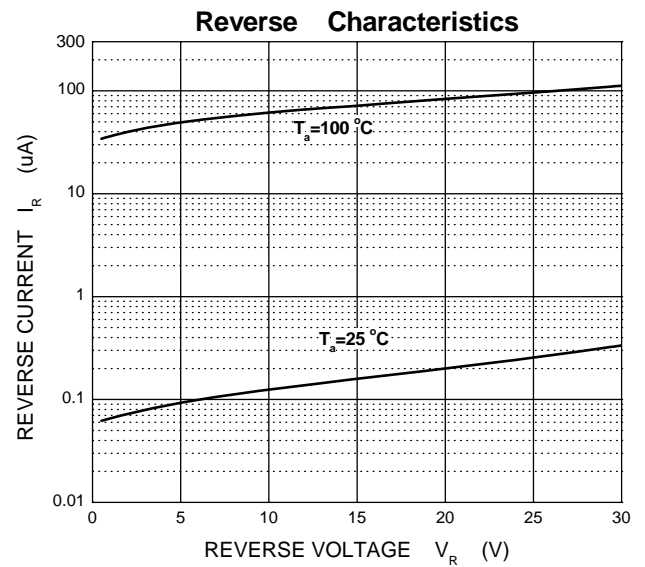
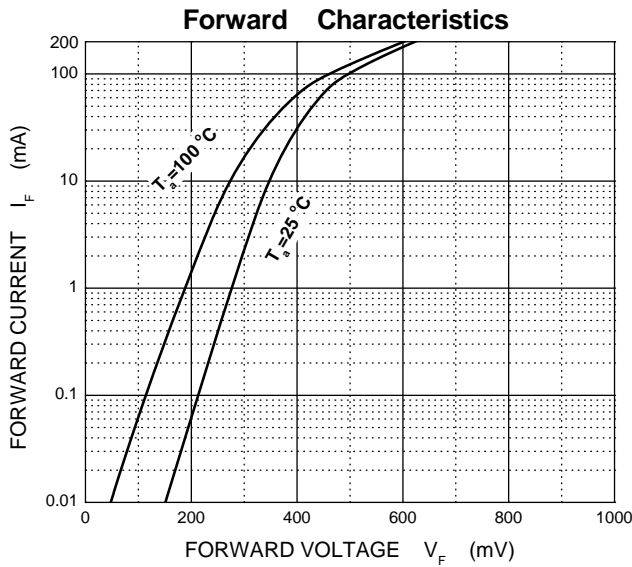
**Maximum Ratings (Ta=25°C unless otherwise noted )**

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	30	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
Forward Continuous Current	$I_{FM}$	200	mA
Non-repetitive Peak Forward Surge Current @ $t=8.3ms$	$I_{FSM}$	600	mA
Repetitive Peak Forward Current @ $t \leq 1s, \delta \leq 0.5$	$I_{FRM}$	300	mA
Power Dissipation	$P_D$	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	500	°C/W
Junction Temperature	$T_j$	125	°C
Storage Temperature	$T_{stg}$	-55~+150	°C

**ELECTRICAL CHARACTERISTICS(T<sub>a</sub>=25°C unless otherwise specified)**

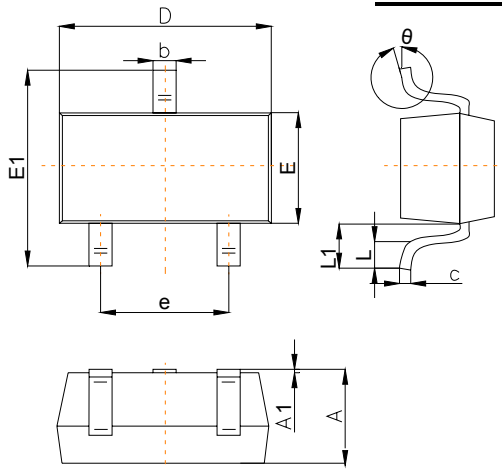
Parameter	Symbol	Min	Typ	Max	Unit	Test conditions
Reverse voltage	$V_{(BR)}$	30			V	$I_R=100\mu A$
Forward voltage	$V_F$			0.24	V	$I_{F1}=0.1mA$
				0.32	V	$I_{F2}=1mA$
				0.40	V	$I_{F3}=10mA$
				0.50	V	$I_{F4}=30mA$
				1	V	$I_{F5}=100mA$
Reverse current	$I_R$			2	$\mu A$	$V_R=25V$
Diode capacitance	$C_D$			10	pF	$V_R=1V, f=1MHz$
Reverse recovery time	$t_{rr}$			5	ns	$I_F=I_R=10mA$ $I_{rr}=0.1 \times I_R, R_L=100 \Omega$

The above data are for reference only.

**Typical Characteristics**


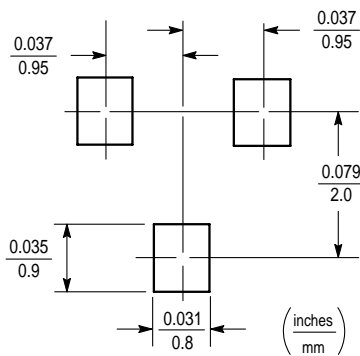
## Outline Drawing

### SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		
	Min	Typ	Max
A	0.65		1.40
A1	0.00		0.20
b	0.30		0.55
c	0.08		0.20
D	2.70		3.10
E	1.15		1.65
E1	2.10		2.80
e	1.70		2.10
L	0.15		0.50
L1	0.35		0.70
$\theta$	0°		12°

### Suggested Pad Layout



#### Note:

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

## PACKAGE SPECIFICATIONS

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (pcs)	Box Size (mm)	QTY/Box (pcs)	Carton Size (mm)	Q'TY/Carton (pcs)
SOT-23	7'	330	3000	203×203×195	45000	438×438×220	180000