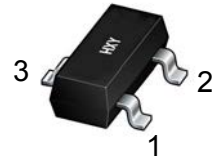


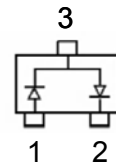


### Features

- Peak Forward Current:  $I_{FM}=200\text{mA}$
- Power Dissipation of 200mw



SOT-23



### Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAT54S	SOT-23	KL4	3000

### Maxmim Ratings (Ta=25 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 @ $t=8.3\text{ms}$	$I_{FSM}$	600	mA
Repetitive Peak Forward Current @ $t \leq 1\text{s}, \delta \leq 0.5$	$I_{FRM}$	300	mA
Power Dissipation	$P_D$	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	$T_j$	-40 ~ +125	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ +150	$^{\circ}\text{C}$

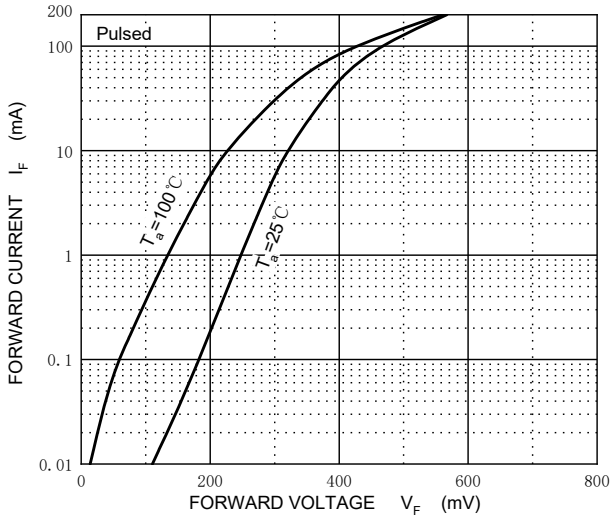
### Electrcal Characteristics (Ta=25 unless otherwise specified)

Parameter	Symbol	Min	Max	Unit	Test conditions
Reverse voltage	$V_{(BR)}$	30		V	$I_R=100\mu\text{A}$
Forward voltage	$V_F$		0.24	V	$I_{F1}=0.1\text{mA}$
			0.32	V	$I_{F2}=1\text{mA}$
			0.40	V	$I_{F3}=10\text{mA}$
			0.50	V	$I_{F4}=30\text{mA}$
			1	V	$I_{F5}=100\text{mA}$
Reverse 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	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

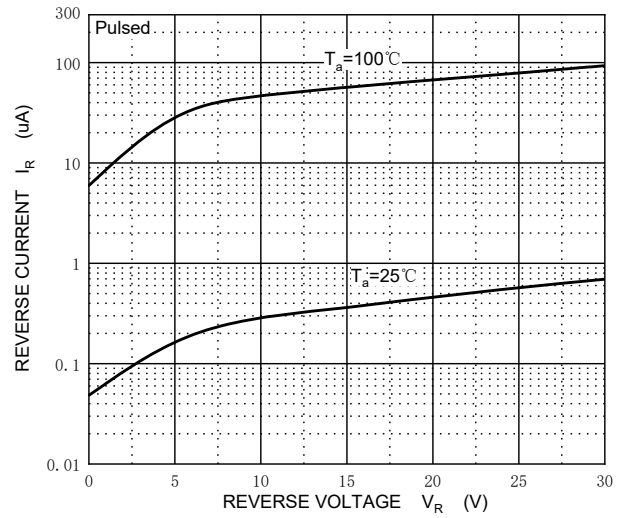


### Typical Characteristics

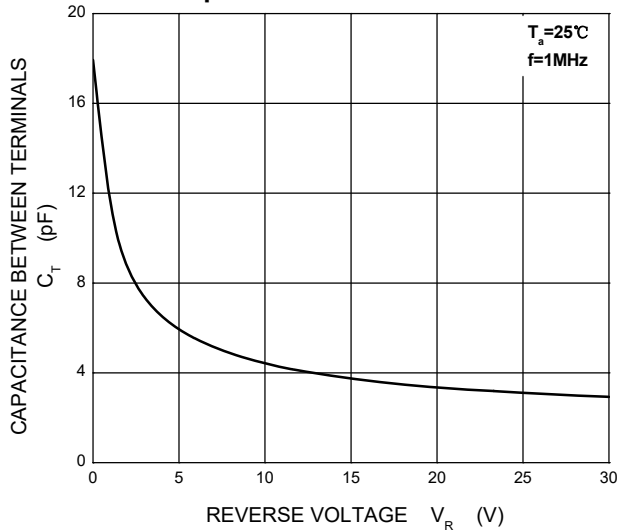
#### Forward Characteristics



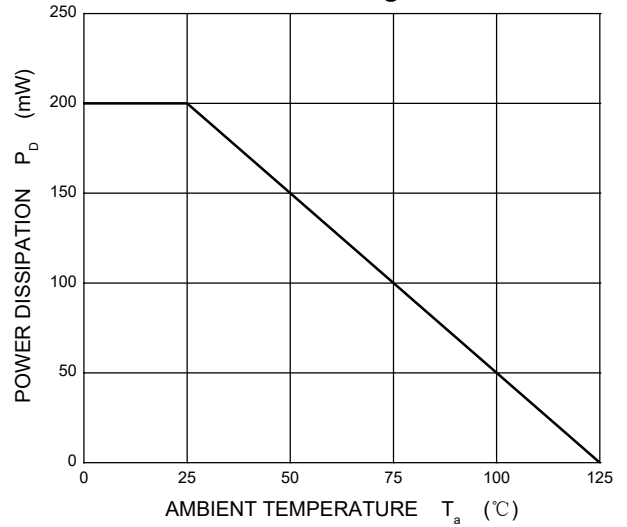
#### Reverse Characteristics



#### Capacitance Characteristics

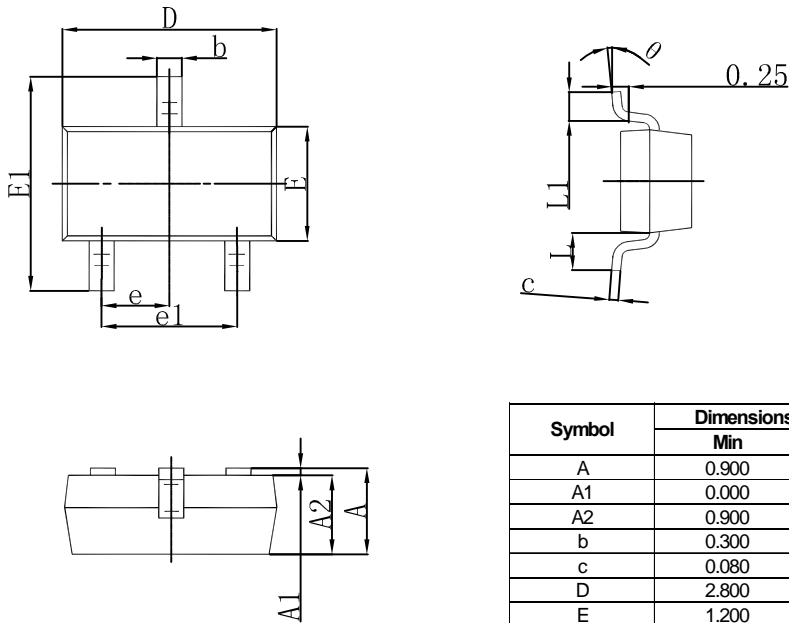


#### Power Derating Curve





### 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.



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