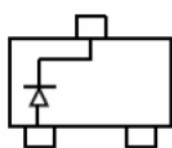
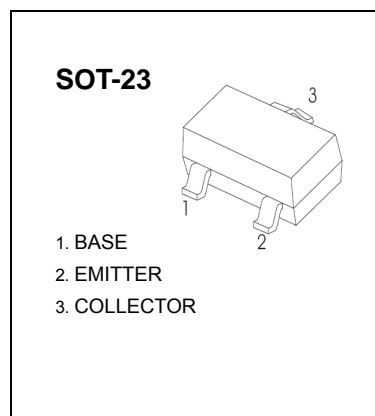


# SOT-23 Plastic-Encapsulate Transistors

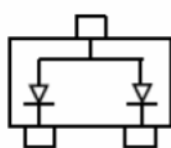
## BAT54/A/C/S SCHOTTKY BARRIER DIODE

### FEATURES

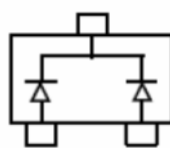
- Extremely Fast Switching Speed



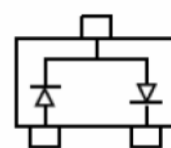
BAT54 MARKING: KL1/D3E



BAT54A MARKING: KL2



BAT54C MARKING: KL3



BAT54S MARKING: KL4

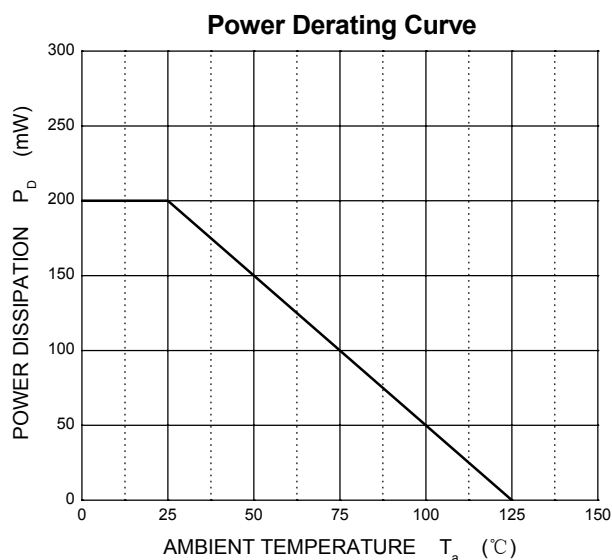
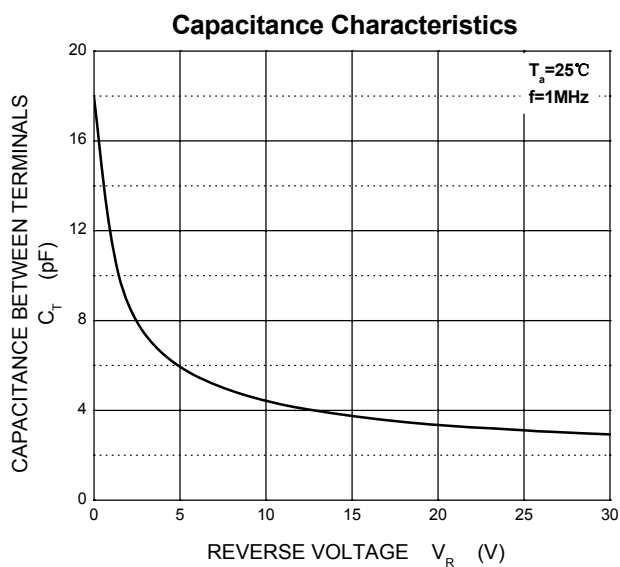
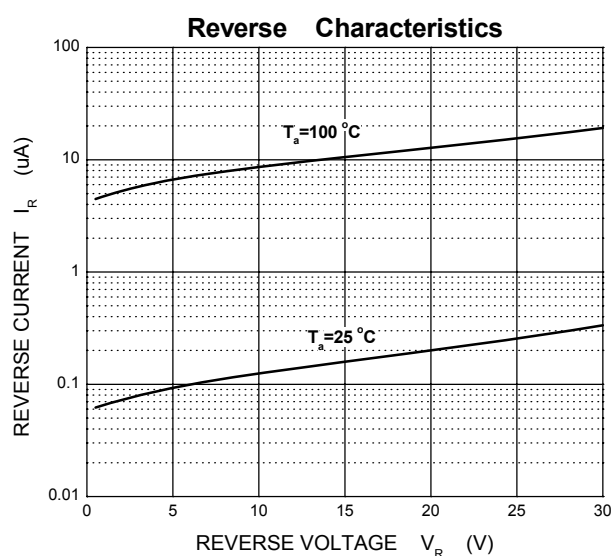
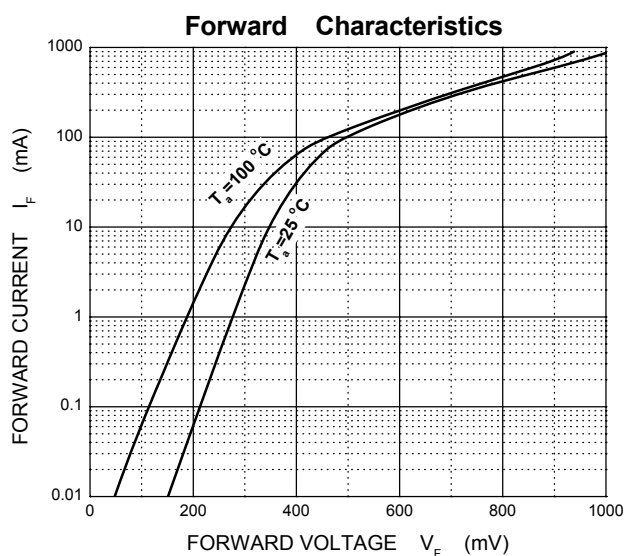
### MAXIMUM RATINGS ( T<sub>a</sub>=25°C unless otherwise noted )

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
Forward Continuous Current	I <sub>FM</sub>	200	mA
Non-repetitive Peak Forward Surge Current @ t < 1s	I <sub>FSM</sub>	600	mA
Repetitive Peak Forward Current @ t ≤ 1s, δ ≤ 0.5	I <sub>FRM</sub>	300	mA
Power Dissipation	P <sub>D</sub>	200	mW
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	500	°C/W
Junction Temperature	T <sub>j</sub>	125	°C
Storage Temperature	T <sub>stg</sub>	-55~+150	°C

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

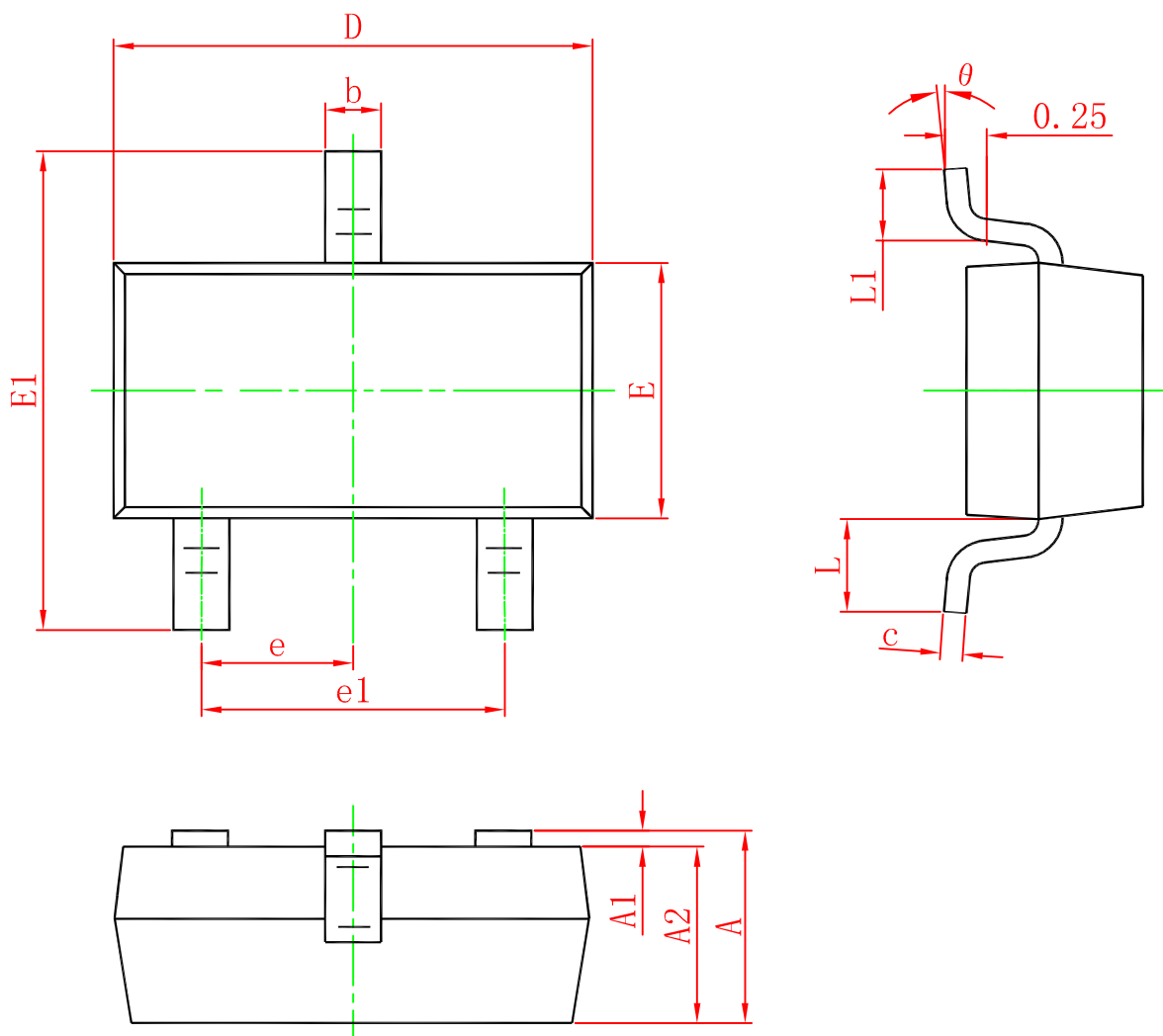
Parameter	Symbol	Min	Typ	Max	Unit	Test conditions
Reverse voltage	V <sub>(BR)</sub>	30			V	I <sub>R</sub> =100μA
Forward voltage	V <sub>F</sub>			0.24	V	I <sub>F1</sub> =0.1mA
				0.32	V	I <sub>F2</sub> =1mA
				0.40	V	I <sub>F3</sub> =10mA
				0.50	V	I <sub>F4</sub> =30mA
				1	V	I <sub>F5</sub> =100mA
Reverse current	I <sub>R</sub>			2	μA	V <sub>R</sub> =25V
Diode capacitance	C <sub>D</sub>			10	pF	V <sub>R</sub> =1V, f=1MHz
Reverse recovery time	t <sub>rr</sub>			5	ns	I <sub>F</sub> =I <sub>R</sub> =10mA I <sub>rr</sub> =0.1 × I <sub>R</sub> , R <sub>L</sub> =100 Ω

### Typical Characteristics



SOT-23 Plastic-Encapsulate Transistors

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°