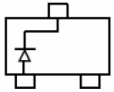
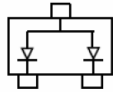


**SOT- 23 Plastic-Encapsulate Diodes**
**FEATURES**

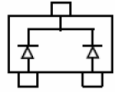
- Extremely Fast Switching Speed

**MARKING:**


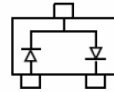
MARKING: KL1



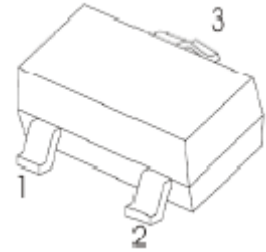
MARKING: KL2







MARKING: KL3



MARKING: KL4

**SOT-23**


BAT54	BAT54A	BAT54C	BAT54S
			

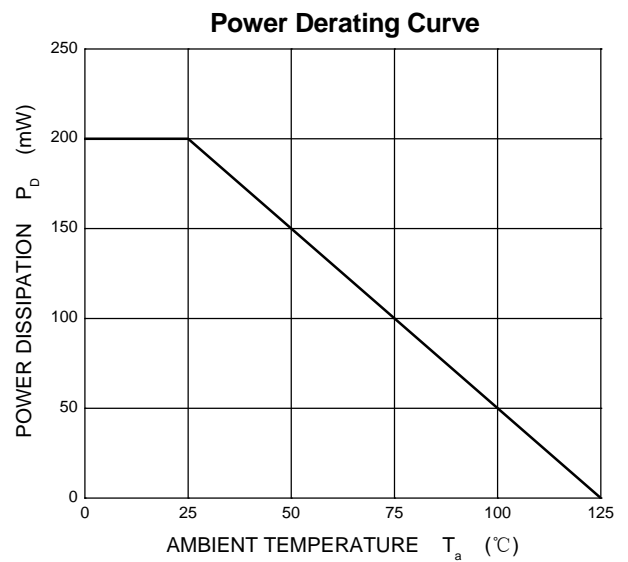
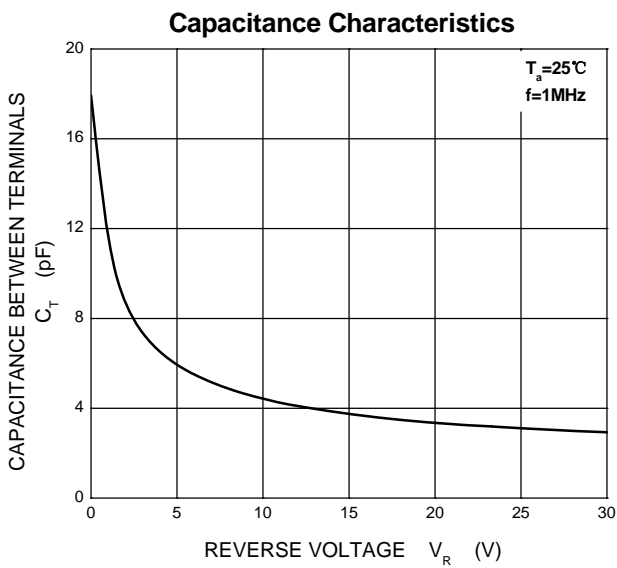
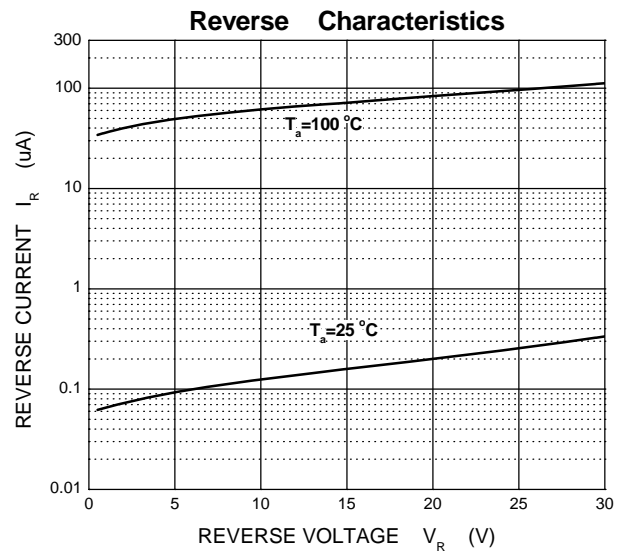
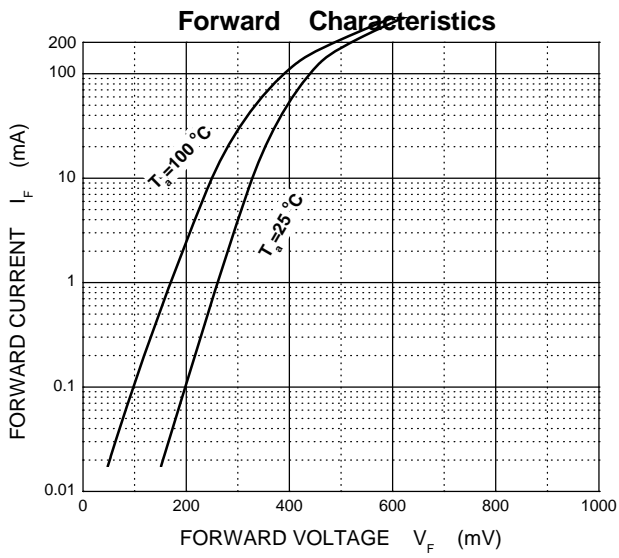
Solid dot = Green molding compound device, if none, the normal device.

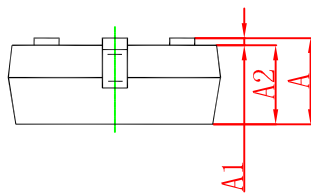
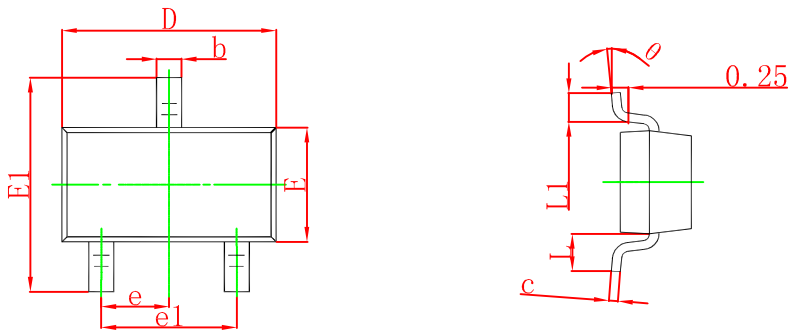
**MAXIMUM RATINGS ( T<sub>a</sub>=25°C unless otherwise noted )**

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=8.3ms	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

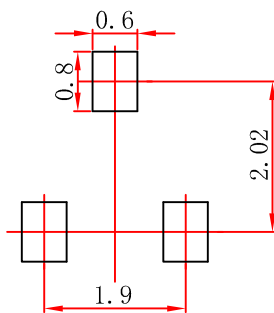
**ELECTRICAL CHARACTERISTICS(T<sub>a</sub>=25°C unless otherwise specified)**

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**




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.