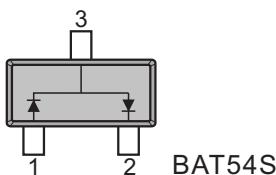
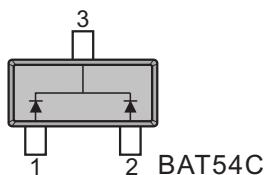
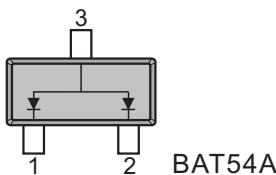
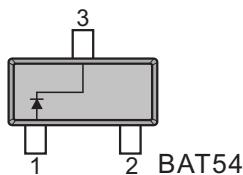


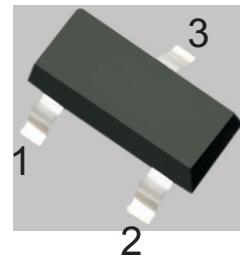
SCHOTTKY BARRIER DIODE

FEATURES

- Extremely Fast Switching Speed



SOT-23



MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}		
Working Peak Reverse Voltage	V_{RWM}	30	V
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≤1s, δ≤0.5	I_{FRM}	300	mA
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	R_{thJA}	500	°C/W
Operating Junction Temperature Range	T_j	-40~+125	°C
Storage Temperature Range	T_{stg}	-55~+150	°C

ELECTRICAL CHARACTERISTICS(Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	V_{BR}	$I_R=100\mu A$	30			V
Reverse current	I_R	$V_R=25V$			2	uA
Forward voltage	V_F	$I_F1=0.1mA$			0.24	V
		$I_F2=1mA$			0.32	V
		$I_F3=10mA$			0.40	V
		$I_F4=30mA$			0.50	V
		$I_F5=100mA$			1	V
Diode capacitance	C_D	$V_R=4V, f=1MHz$		10		pF
Reverse recovery time	trr	$I_F=I_R=10mA, I_{rr}=0.1\times I_R, R_L=100\Omega$			5	ns

Fig.1 Power Derating Curve

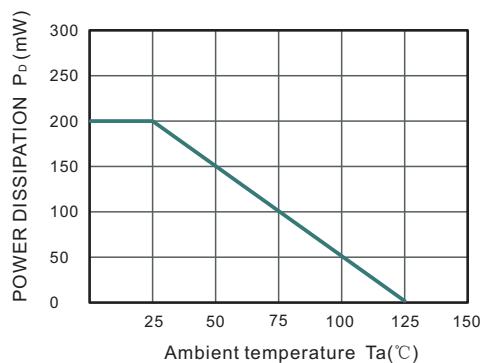


Fig.2 Reverse Characteristics

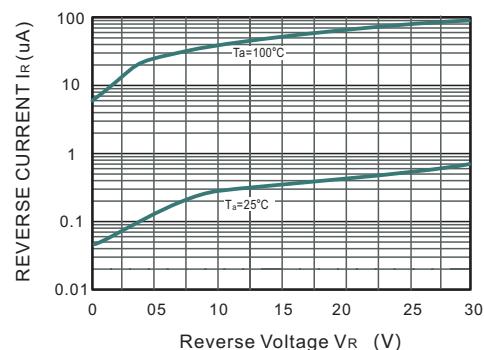


Fig.3 Forward Characteristics

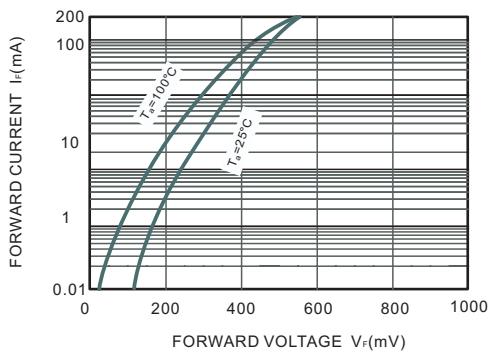
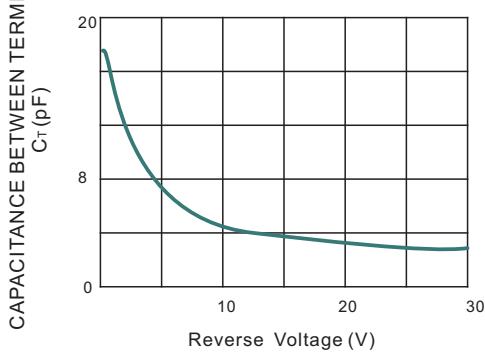
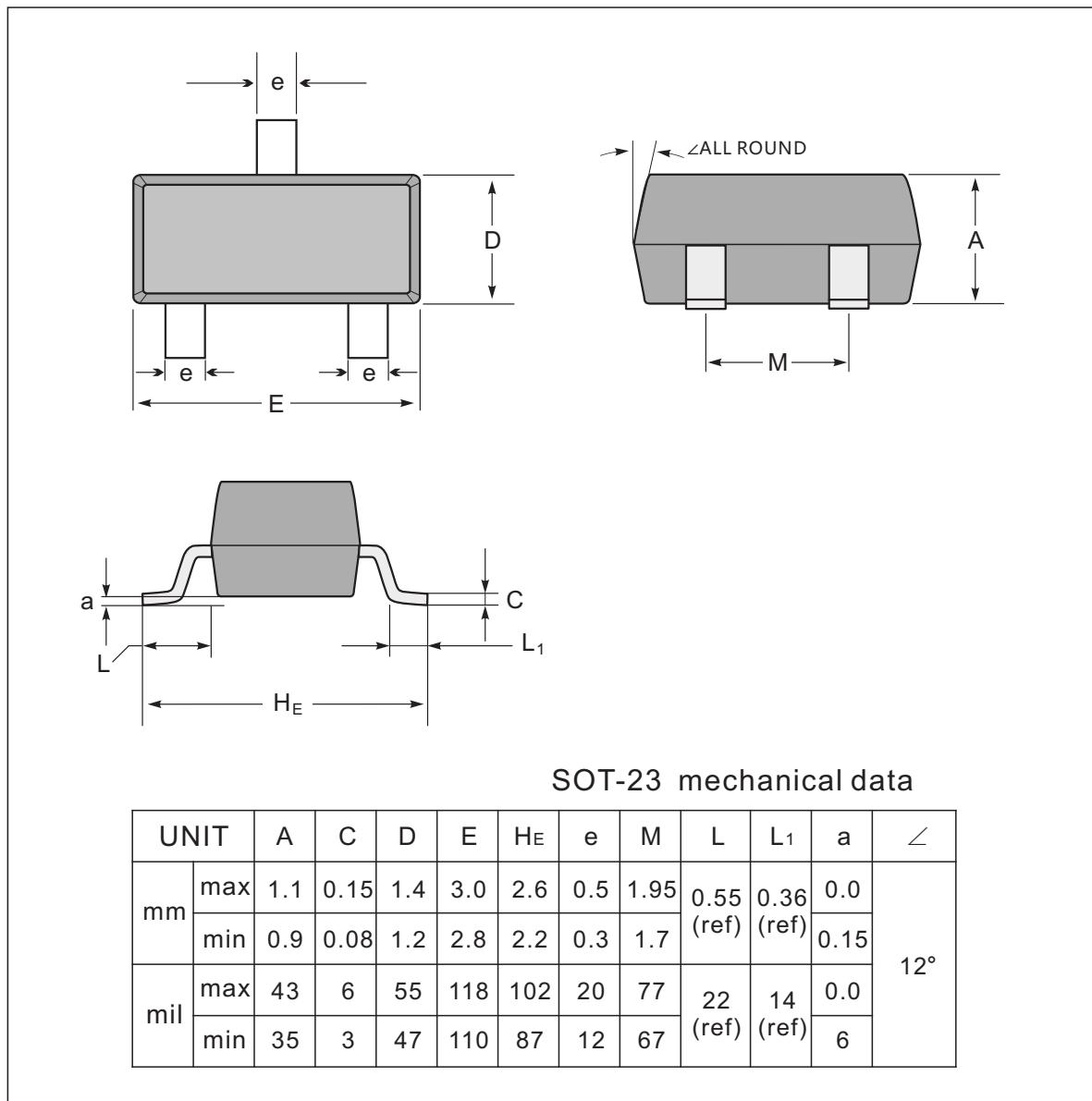


Fig.4 Capacitance Characteristics



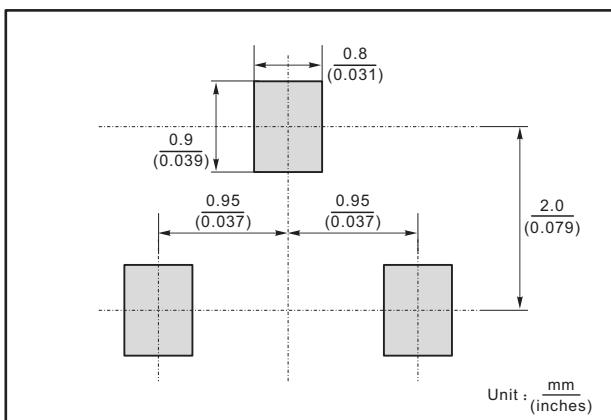
SOT-23 Package Outline Dimensions



SOT-23 mechanical data

UNIT		A	C	D	E	H_E	e	M	L	L_1	a	\angle
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0	12°
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15	
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0	
	min	35	3	47	110	87	12	67			6	

The recommended mounting pad size



Marking

Type number	Marking code
BAT54	KL1
BAT54A	KL2
BAT54C	KL3
BAT54S	KL4