



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

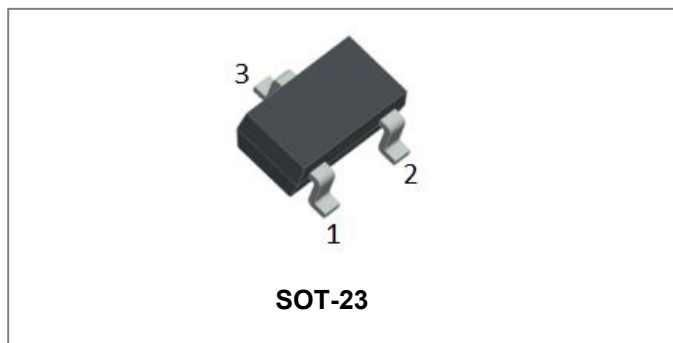
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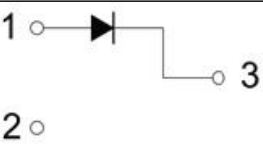
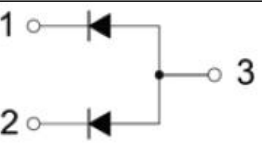
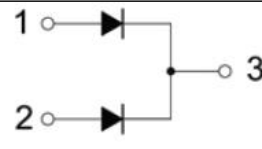
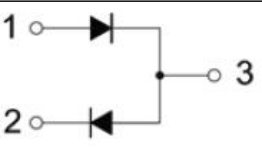
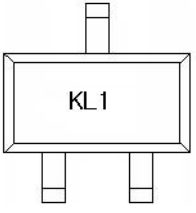
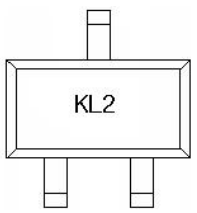
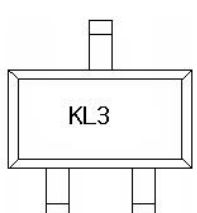
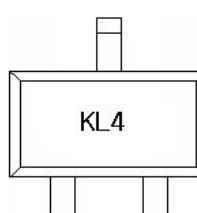


## BAT54/A/C/S SCHOTTKY BARRIER DIODE



### Features

- Negligible switching losses
- Very small conduction losses
- Low forward voltage drop
- Surface mount device
- Double diodes with different pinning are available
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

BAT54	BAT54A	BAT54C	BAT54S
			
MARKING:KL1	MARKING:KL2	MARKING:KL3	MARKING:KL4
			

Note: If date code is before 16221, please contact with factory about marking.

### Maximum Ratings@T<sub>A</sub>=25°C unless otherwise specified

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	-	30	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @T <sub>C</sub> = 80°C, rectangular wave form	0.2	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	$I_{FSM}$	8.3 ms, half Sine pulse	0.6	A
Power dissipation#	$P_{tot}$	T <sub>amb</sub> = 25 °C	200	mW

**Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified**

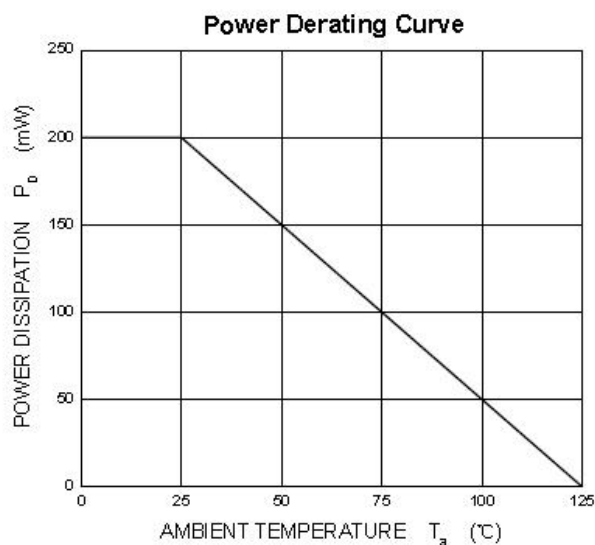
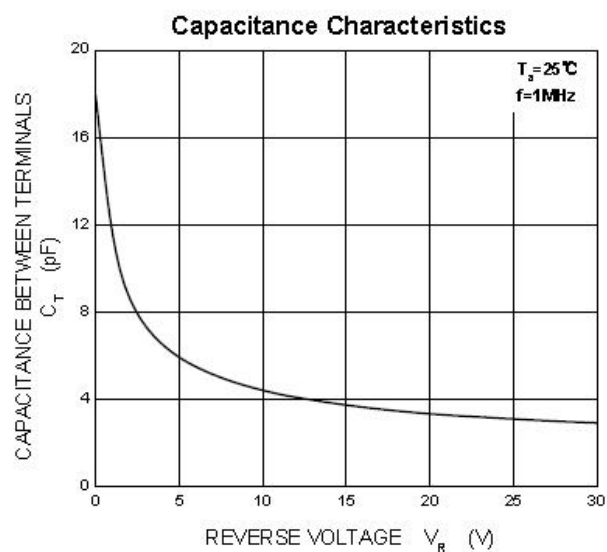
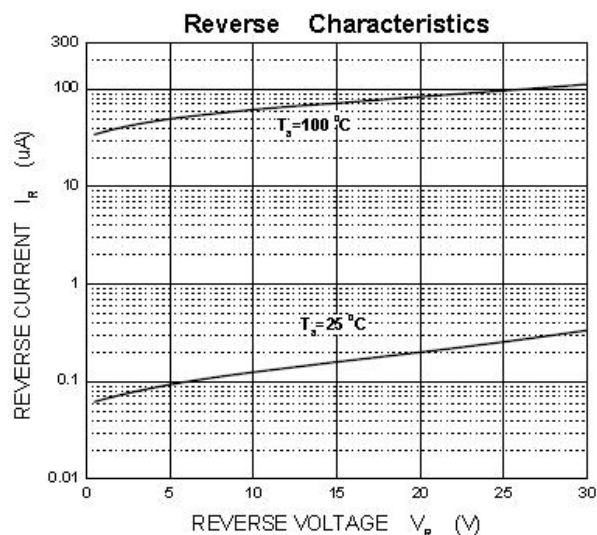
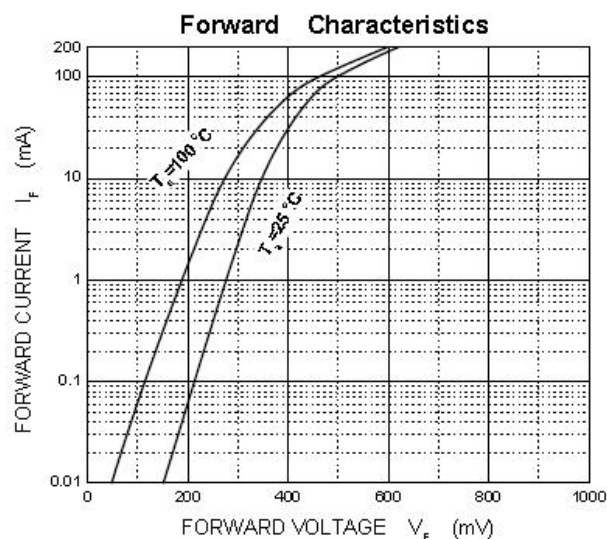
Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop(per leg)*	V <sub>F1</sub>	@ 0.1mA, Pulse, T <sub>J</sub> = 25 °C	0.24	V
		@ 1mA, Pulse, T <sub>J</sub> = 25 °C	0.32	
		@ 10mA, Pulse, T <sub>J</sub> = 25 °C	0.40	
		@ 30mA, Pulse, T <sub>J</sub> = 25 °C	0.50	
		@ 100mA, Pulse, T <sub>J</sub> = 25 °C	1.0	
Reverse Current(per leg)*	I <sub>R1</sub>	@V <sub>R</sub> = rated V <sub>R</sub> , Pulse, T <sub>J</sub> = 25 °C	2.0	μA
	I <sub>R2</sub>	@ V <sub>R</sub> = rated V <sub>R</sub> , Pulse, T <sub>J</sub> = 100°C	100	μA
Junction Capacitance(per leg)	C <sub>T</sub>	@V <sub>R</sub> = 5.0 V, T <sub>c</sub> =25°C fSIG = 1MHz	10	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =10mA I <sub>R</sub> = 10mA T <sub>J</sub> = 25 °C I <sub>rr</sub> =1 mA R <sub>L</sub> =100Ω	5	ns

\* Pulse width < 300 μs, duty cycle < 2%

**Thermal-Mechanical Specifications**

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T <sub>J</sub>	-	125	°C
Storage Temperature	T <sub>stg</sub>	-	-55 to +150	°C
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	DC operation	500	°C/W

## Ratings and Characteristics Curves

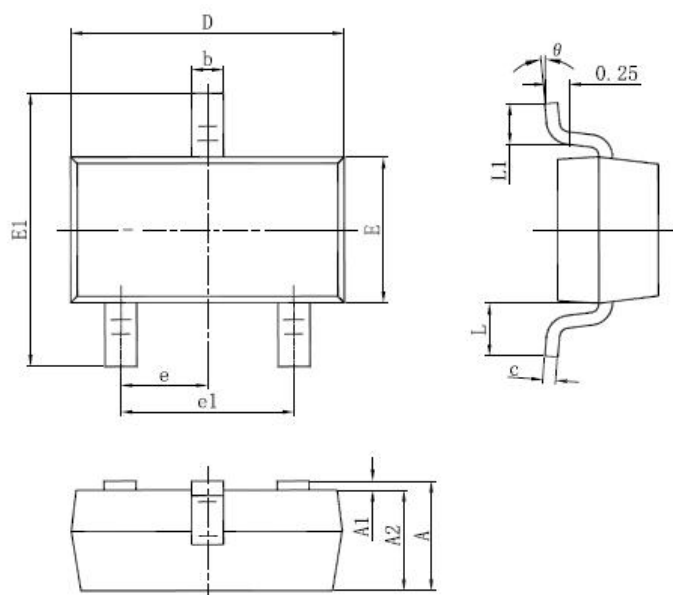


## Ordering Information

Device	Package	Shipping
BAT54/A/C/S	SOT-23(Pb-Free)	3000pcs / reel

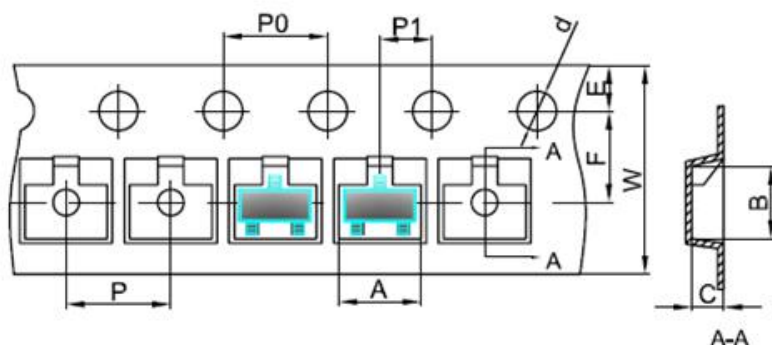
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

## Mechanical Dimensions SOT-23



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	0.890	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	0.076	0.170	0.003	0.007
D	2.650	3.050	0.104	0.120
E	1.190	1.400	0.047	0.055
E1	2.100	2.550	0.083	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.780	2.050	0.070	0.081
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

## Carrier Tape Specification SOT-23



SYMBOL	Millimeters	
	Min.	Max.
A	3.05	3.25
B	2.67	2.87
C	1.12	1.32
d	1.40	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

**Technical Data**  
**Data Sheet N0123, Rev. D**



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