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BAT54/A/C/S SCHOTTKY RECTIFIER

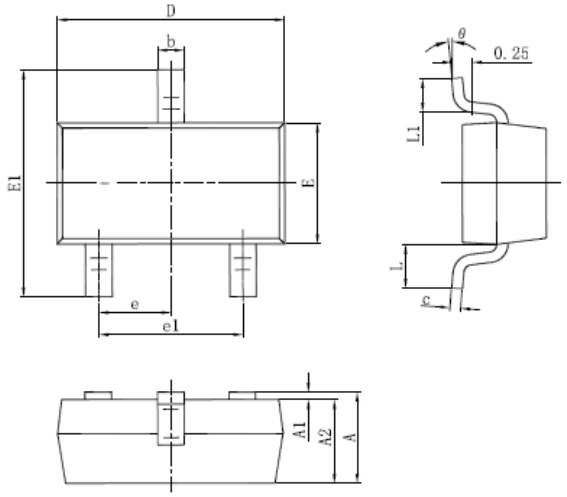
Applications:

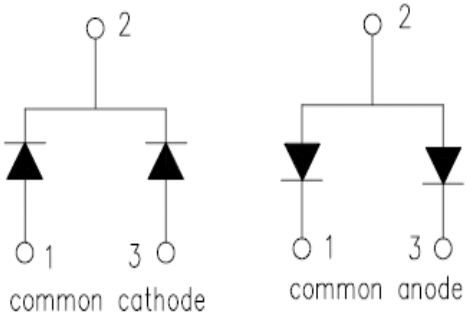
- **Small signal switching**

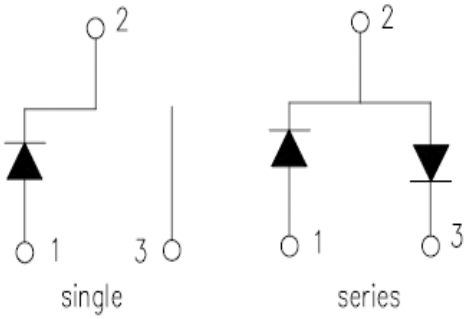
Features:

- **Negligible switching losses**
- **Very small conduction losses**
- **Low forward voltage drop**
- **Surface mount device**
- **Double diodes with different pining are available**
- **Schottky barrier diodes encapsulated in a SOT-23 small SMD packages**
- **This is a Pb − Free Device**
- **All SMC parts are traceable to the wafer lot**
- **Additional testing can be offered upon request**

Mechanical Dimensions: In Inches / mm







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 Package

BAT54C	**Common Cathode**	**BAT54A**	**Common Anode**
BAT54	**Single**	**BAT54S**	**Series**

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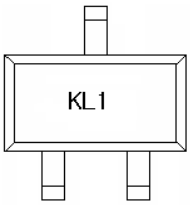
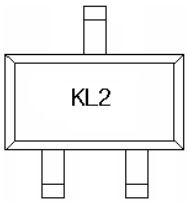
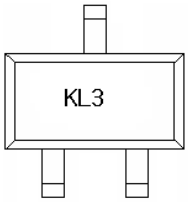
Marking Diagram:



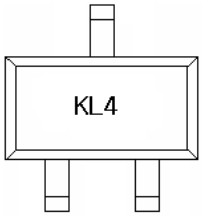
BAT54



BAT54A



BAT54C



BAT54S

KL1/KL2/KL3/KL4 = Part Name

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

Cautions: Molding resin
Epoxy resin UL:94V-0

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.

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Maximum Ratings:

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_C =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_{amb} = 25 °C	200	mW

for double diodes, P_{tot} is the total dissipation of both diodes.

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop(per leg)*	V_{F1}	@ 0.1mA, Pulse, T_J = 25 °C @ 1mA, Pulse, T_J = 25 °C @ 10mA, Pulse, T_J = 25 °C @ 30mA, Pulse, T_J = 25 °C @ 100mA, Pulse, T_J = 25 °C	0.24 0.32 0.40 0.50 1.0	V
Reverse Current(per leg)**	I_{R1}	@V_R = rated V_R, Pulse, T_J = 25 °C	2.0	μA
	I_{R2}	@ V_R = rated V_R, Pulse, T_J = 100°C	100	μA
Junction Capacitance (per leg)	C_T	@V_R = 5.0 V, Tc=25℃ f_{SIG} = 1MHz	10	pF
Reverse Recovery Time	t_{rr}	I_F=10mA I_R = 10mA T_J = 25 °C I_{rr} =1 mA R_L=100Ω	5	ns

Pulse test:
* tp=380ms, δ<2%
* * tp=5ms, δ<2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	125	°C
Storage Temperature	T_{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	DC operation	500	°C/W
Case Style	SOT-23			

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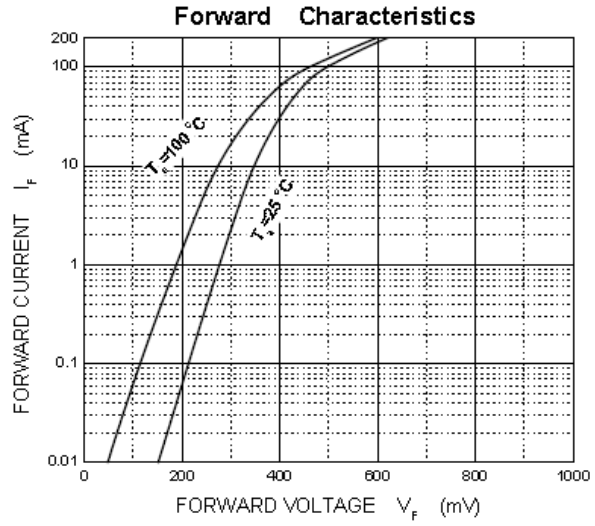

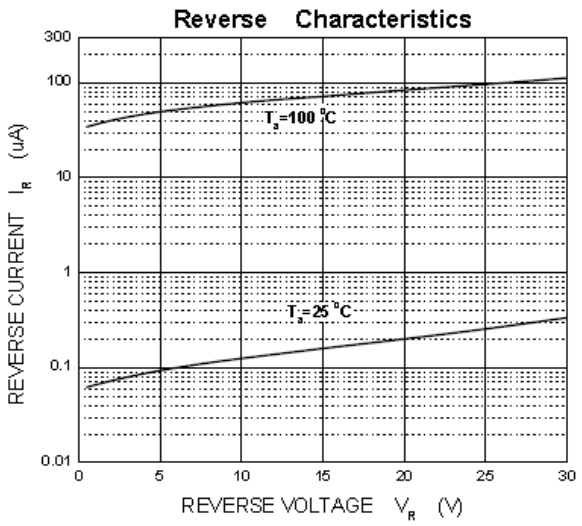

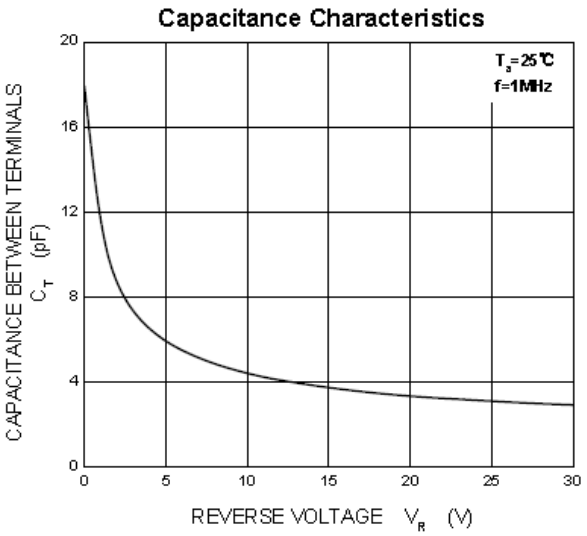

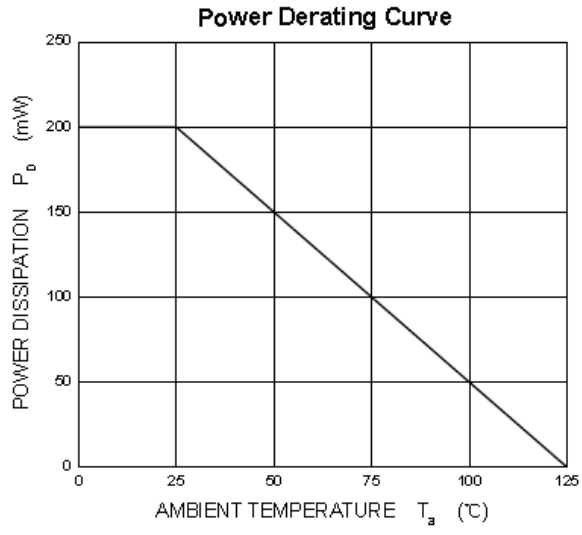

BAT54/A/C/S

SURFACE MOUNT SCHOTTKY BARRIER DIODE

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