

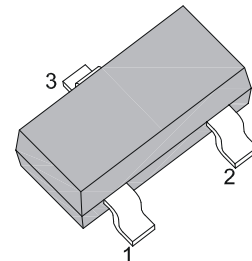
Multiple Terminals SMD Schottky Diodes

Features

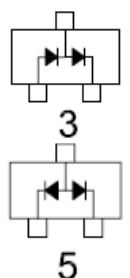
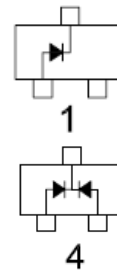
- Low Turn-on Voltage
- Fast Switching
- High Conductance
- Electrically Identical to Standard JEDEC
- RoHS Compliant

Mechanical Data

Case:	SOT-23, Plastic Package
Terminals:	Solderable per MIL-STD-202G, Method 208
Weight:	Approx. 0.008 gram



SOT-23



Maximum Ratings ($T_{Ambient}=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	BAT54	BAT54A	BAT54C	BAT54S	Unit	Conditions
	Pinout Figure	1	5	4	3		
	Marking Code	L4/JV3	L42/B6	L43/KL3	L44/LD3		
V_{RRM}	Repetitive Peak Reverse Voltage	30				V	
I_{F(AV)}	Maximum Average Forward Current	200				mA	$T_A=75^{\circ}\text{C}$
I_{FRM}	Repetitive Peak Forward Current	300				mA	
I_{FSM}	Peak Forward Surge Current, Pulse Width=1.0s (JEDEC Method)	600				mA	
P_D	Power Dissipation	200				mW	$T_A=25^{\circ}\text{C}$
		2.0				mW/ $^{\circ}\text{C}$	Derate above 25°C
R_{thJA}	Thermal Resistance, Junction to Ambient	500				$^{\circ}\text{C}/\text{W}$	
T_J	Operating Junction Temperature Range	125				$^{\circ}\text{C}$	
T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150				$^{\circ}\text{C}$	

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BAT54/A/C/S

Electrical Characteristics ($T_{\text{Ambient}}=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	Min.	Max.	Unit	Conditions
$V_{(BR)R}$	Reverse Breakdown Voltage	30	-	V	$I_R=10\mu\text{A}$
V_F	Forward Voltage	-	0.24	V	$I_F=0.1\text{mA}$
		-	0.32		$I_F=1.0\text{mA}$
		-	0.4		$I_F=10\text{mA}$
		-	0.5		$I_F=30\text{mA}$
		-	1.0		$I_F=100\text{mA}$
I_R	Maximum Reverse Current	-	2.0	μA	$V_R=25\text{V}$
C_J	Junction Capacitance	-	10	pF	$V_R=1\text{V}$, $f=1\text{MHz}$
T_{rr}	Reverse Recovery Time	-	5.0	nS	$I_F=I_R=10\text{mA}$, $I_{R(REC)}=1\text{mA}$,

Typical Characteristics Curves

Fig.1- Forward Current Derating

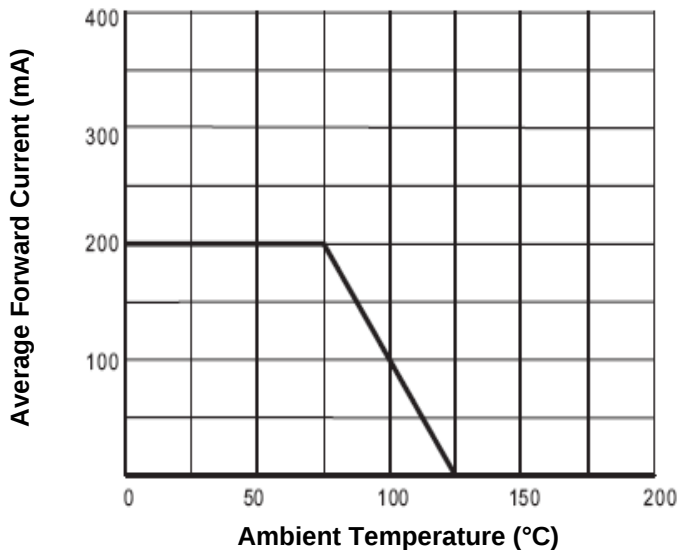


Fig.2- Typical Forward Characteristics

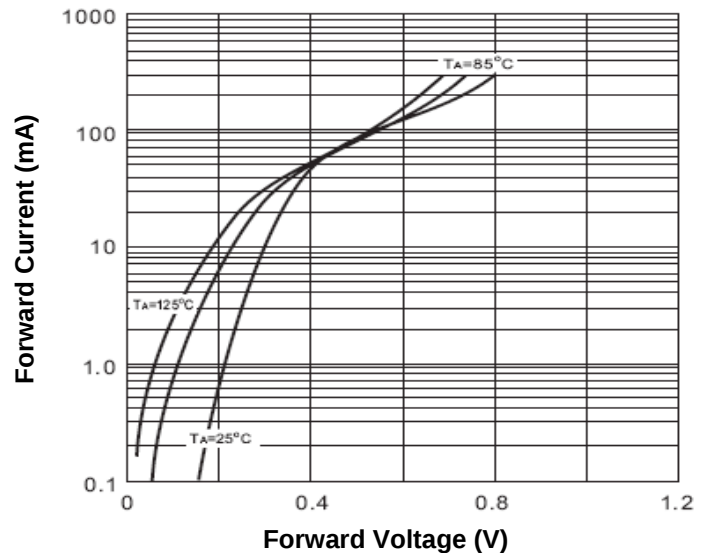


Fig.3-Typical Reverse Characteristics

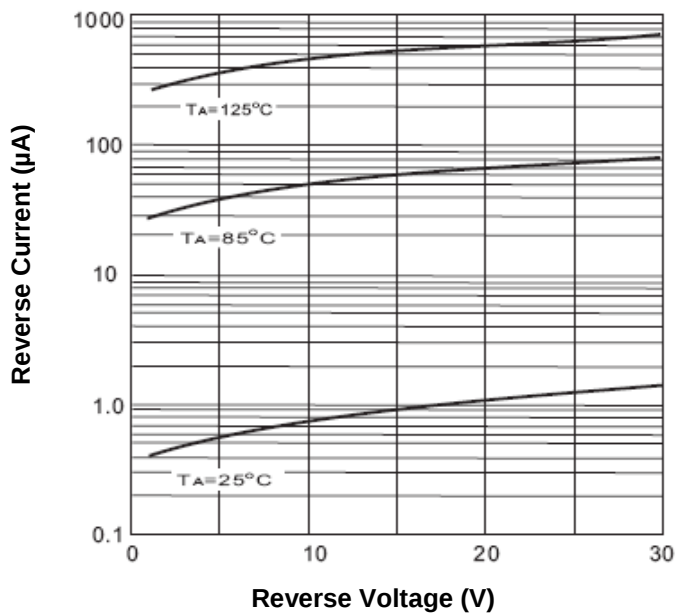
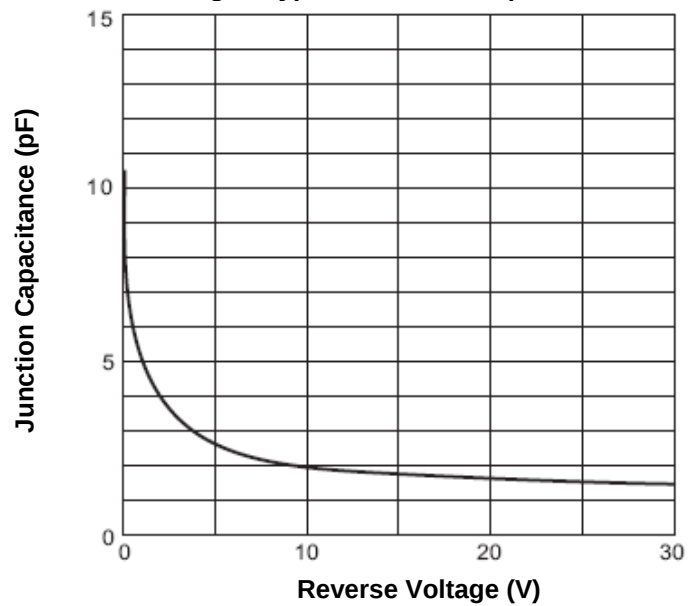


Fig.4- Typical Junction Capacitance

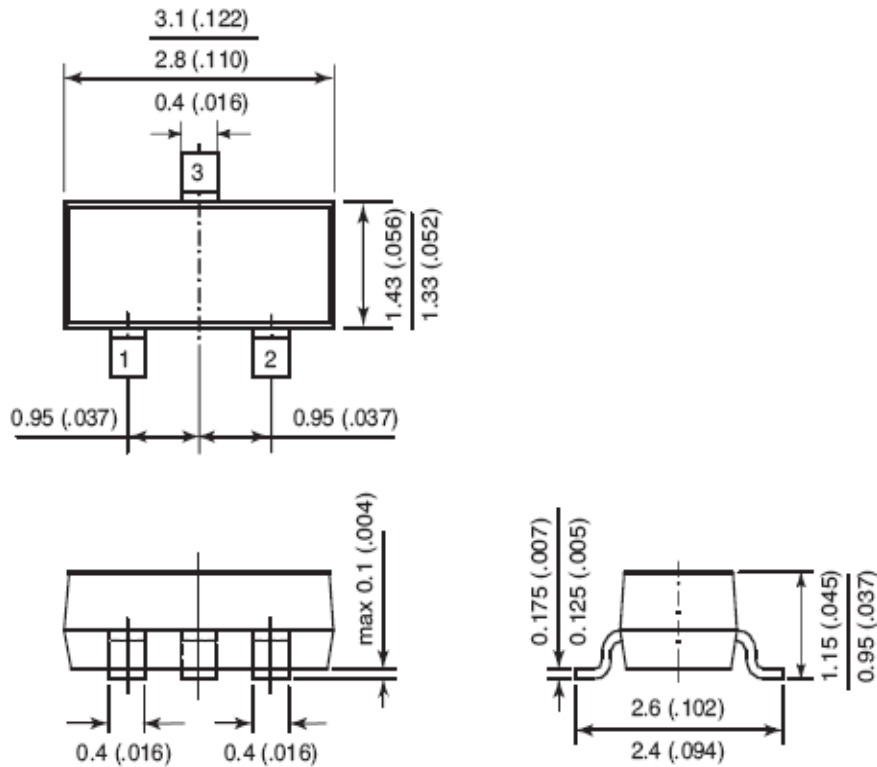


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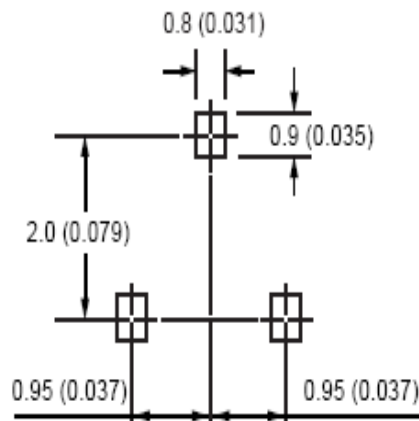
BAT54/A/C/S

Dimensions in mm (inch)

SOT-23



Mounting Pad Layout in mm (inch)

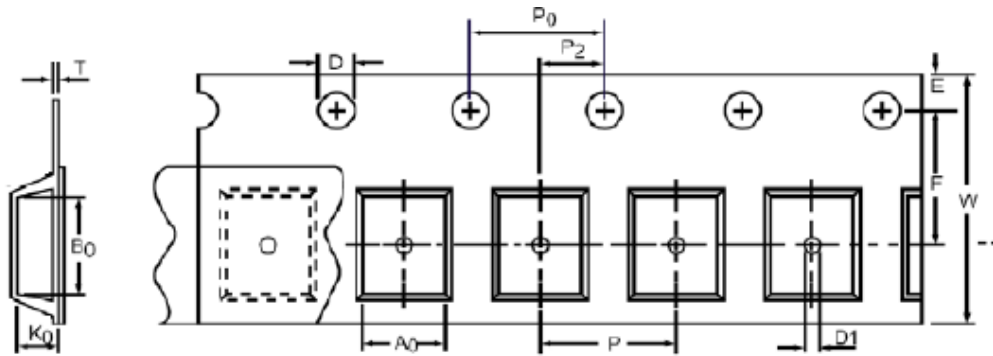


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Packing Information:

Carrier Tape Dimensions (in mm)



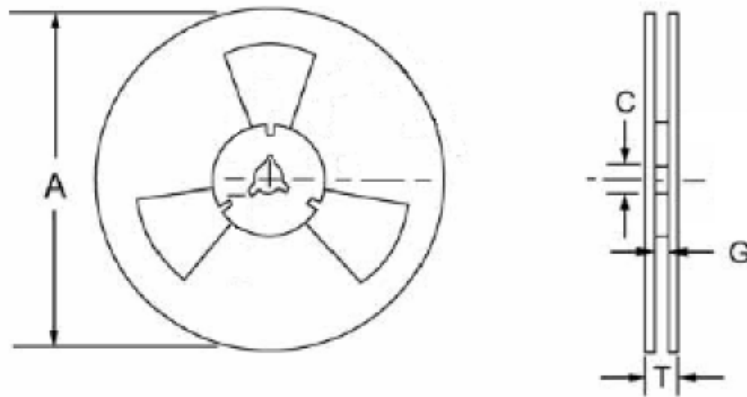
Product Type	A0	B0	K0	D	P0	P
	See Note			1.55±0.5	4.0±0.1	4.0±0.1
SOT-23	W	E	T	D1	F	P2
	8.0+0.3/-0.1	1.75±0.1	0.38±0.1	1.0±0.05	3.5±0.5	2.0±0.05

Note: Symbol A0, B0, K0 are determined by the maximum dimensions of the component size.
The clearance between the component and the cavity must be within
0.05 mm (0.002") min. to 0.50 mm (0.02") max. for 8 mm tape.

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Reel Dimensions (in mm)



A	C	G	T
178.0±2.0	13.0±0.5	8.4±2.0	14.4 max.

Packing Quantity Information:

Quantity	PCS per Inner Box	PCS per Inner Carton
TR70 Tape & Reel	3000/Reel	15000

Inner Carton Size Information:

Carton Size
390X270X400 (in mm)

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BAT54/A/C/S

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