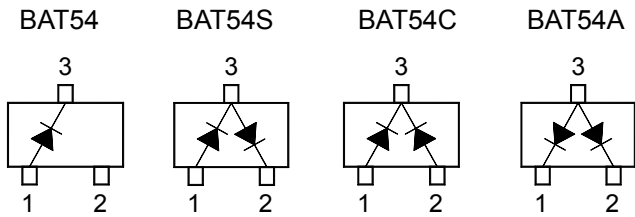
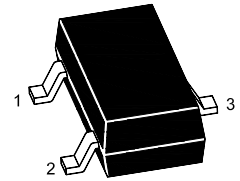




## Equivalent Schematic Diagram



SOT-23  
(TO-236)



## Marking Information:

BAT54	L4
BAT54S	L44
BAT54C	L43
BAT54A	L42

## Absolute Maximum Ratings (TA = 25°C )

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	30	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Repetitive Peak Forward Current	$I_{FRM}$	300	mA
Non-Repetitive Peak Forward Surge Current at Pulse Width=1 second	$I_{FSM}$	600	mA
Power Dissipation	$P_D$	290	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	430	°C/W
Junction Temperature	$T_J$	- 55 to + 150	°C
Storage Temperature Range	$T_{STG}$	- 55 to + 150	°C

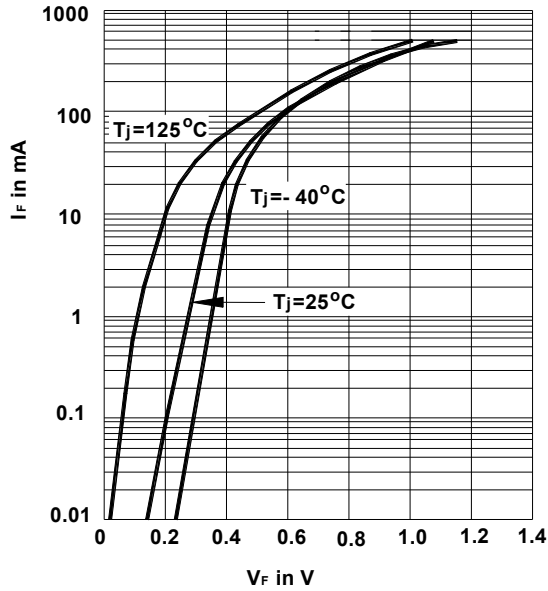
## Characteristics at TA = 25°C

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 0.1$ mA at $I_F = 1$ mA at $I_F = 10$ mA at $I_F = 30$ mA at $I_F = 100$ mA	$V_F$	-	240 320 400 500 1000	mV
Reverse Current at $V_R = 25$ V	$I_R$	-	2	μA
Breakdown Voltage at $I_R = 10$ μA	$V_R$	30	-	V
Total Capacitance at $V_R = 1$ V, $f = 1$ MHz	$C_{tot}$	-	10	pF
Reverse Recovery Time at $I_F = 10$ mA, $I_R = 10$ mA, $I_{RR} = 1$ mA, $R_L = 100$ Ω	$t_{rr}$	-	5	ns

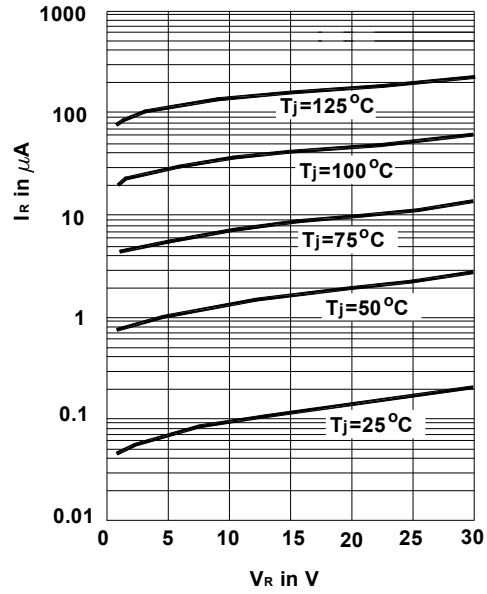


## Electrical Characteristics Curves

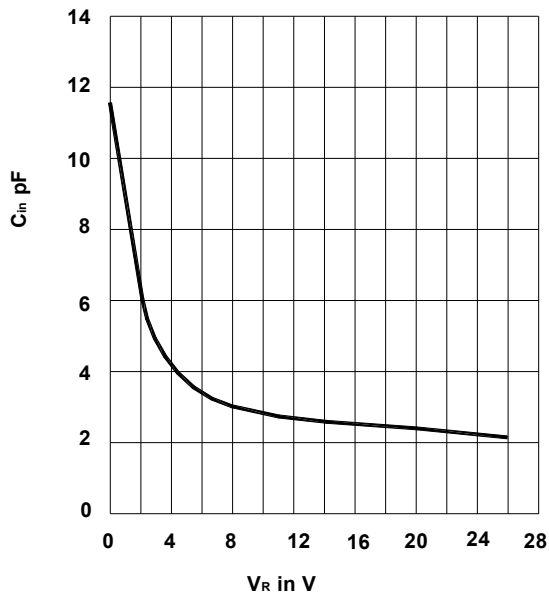
Typical Forward Voltage  
Forward Current  
at Various Temperatures



Typical Variation of Reverse  
Current at Various Temperatures

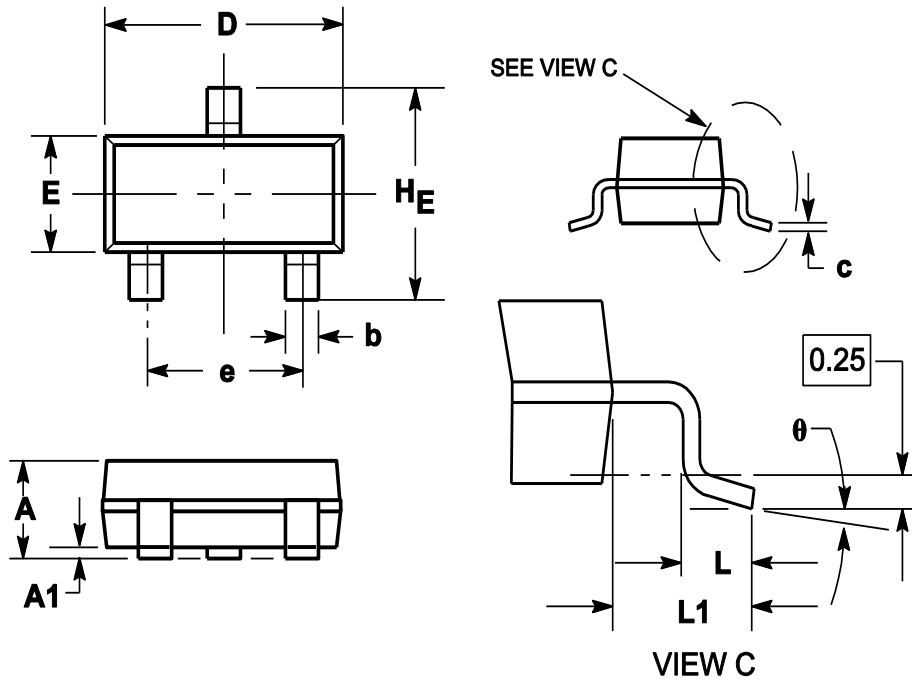


Typical Capacitance  $C_C$  vs.  
Reverse Applied Voltage  $V_R$





### Package Outline (SOT-23)



Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	0.900	1.025	1.150
A1	0.000	0.050	0.100
b	0.300	0.400	0.500
c	0.080	0.115	0.150
D	2.800	2.900	3.000
E	1.200	1.300	1.400
HE	2.250	2.400	2.550
e	1.800	1.900	2.000
L1	0.550REF		
L	0.300		0.500
$\theta$	0°		8°

### Ordering Information

Device	Package	Reel Dimension (inch)	Shipping Quantity
BAT54 Series	SOT-23	7	3,000