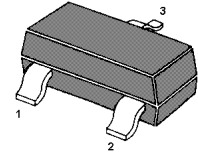


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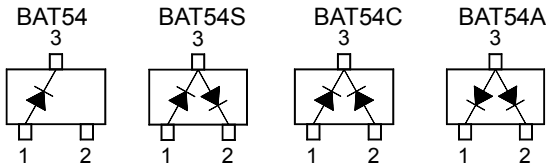
## Schottky Barrier Diodes

### Features

- Halogen and Antimony Free(HAF), RoHS compliant



BAT54 Marking Code: **L4**  
 BAT54A Marking Code: **L42**  
 BAT54C Marking Code: **L43**  
 BAT54S Marking Code: **L44**  
 TO-236 Plastic Package



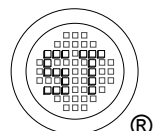
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	30	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current at Pulse width = 1 second	$I_{FSM}$	600	mA
Power Dissipation	$P_{tot}$	290	mW
Operating Junction Temperature Range	$T_j$	- 55 to + 150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

### Thermal Resistance Ratings

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air <sup>1)</sup>	$R_{\theta JA}$	430	$^\circ\text{C/W}$

<sup>1)</sup> Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

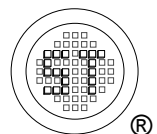


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## Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 0.1 \text{ mA}$	$V_F$	-	240	mV
at $I_F = 1 \text{ mA}$	$V_F$	-	320	mV
at $I_F = 10 \text{ mA}$	$V_F$	-	400	mV
at $I_F = 30 \text{ mA}$	$V_F$	-	500	mV
at $I_F = 100 \text{ mA}$	$V_F$	-	800	mV
Reverse Current at $V_R = 25 \text{ V}$	$I_R$	-	2	$\mu\text{A}$
Reverse Breakdown Voltage at $I_R = 10 \mu\text{A}$	$V_{(BR)R}$	30	-	V
Total Capacitance at $V_R = 1 \text{ V}$ , $f = 1 \text{ MHz}$	$C_{\text{tot}}$	-	10	pF
Reverse Recovery Time at $I_F = 10 \text{ mA}$ , $I_R = 10 \text{ mA}$ , $I_{RR} = 1 \text{ mA}$ , $R_L = 100 \Omega$	$t_{rr}$	-	5	ns



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## Electrical characteristic curves

Fig 1. Forward Current Derating Curve

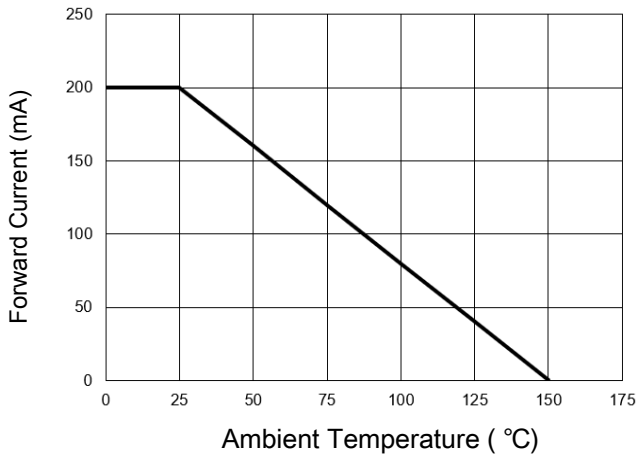


Fig 2. Forward Characteristic Curve

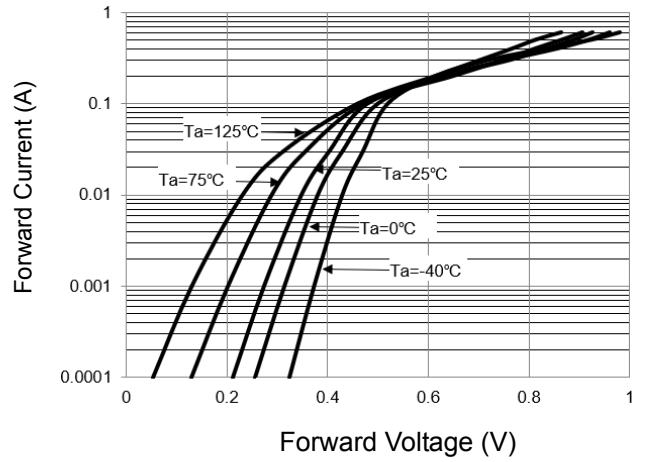


Fig 3. Reverse Characteristic Curve

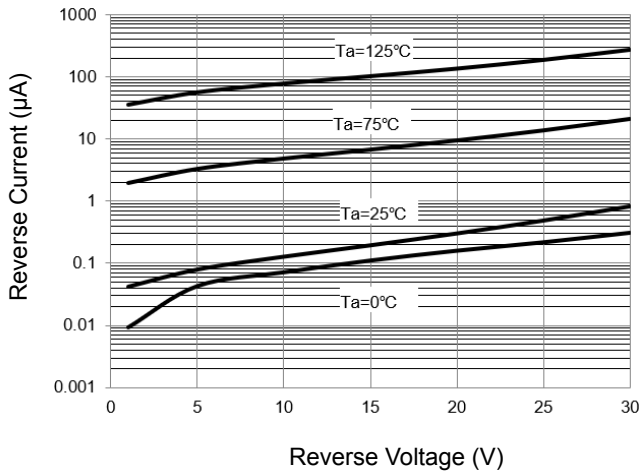
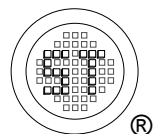
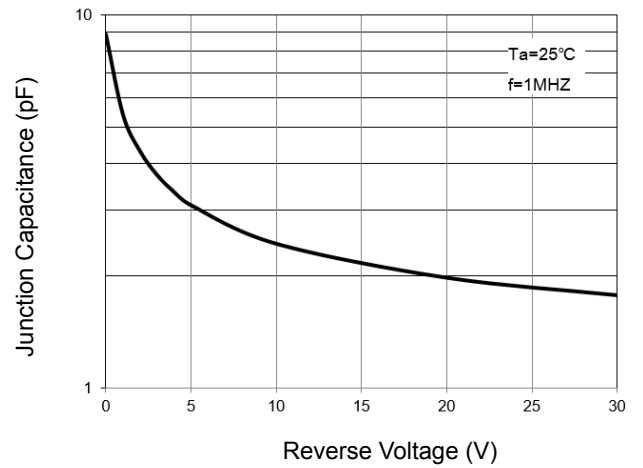


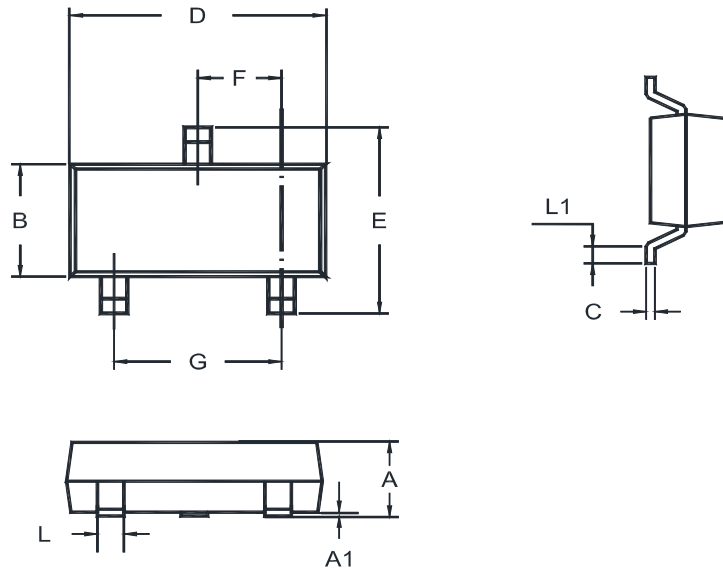
Fig 4. Junction Capacitance



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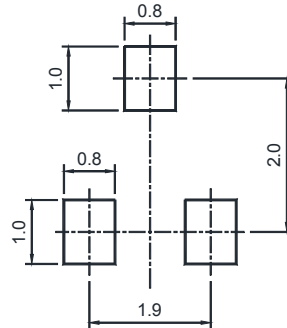
## Package Outline (Dimensions in mm)

TO-236



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20	0.100	1.40	0.19	3.04	2.6	1.02	2.04	0.51	0.2
	0.89	0.013	1.20	0.08	2.80	2.2	0.89	1.78	0.37	Min.

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
TO-236	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

## Marking information

- " \*\*\* " = Part No.
  - " • " = HAF (Halogen and Antimony Free)
  - "YM" = Date Code Marking
  - "Y" = Year
  - "M" = Month
- Font type: Arial

