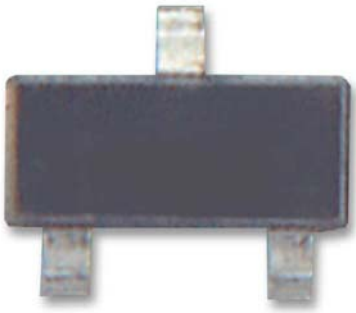


## Low Power Schottky Diodes



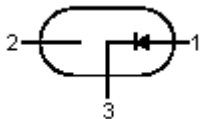
### Features:

- Very low turn-on voltage and ultra-fast switching diodes, suitable for UHF detectors and other high frequency switching circuits.
- Supplied on 8mm tape.

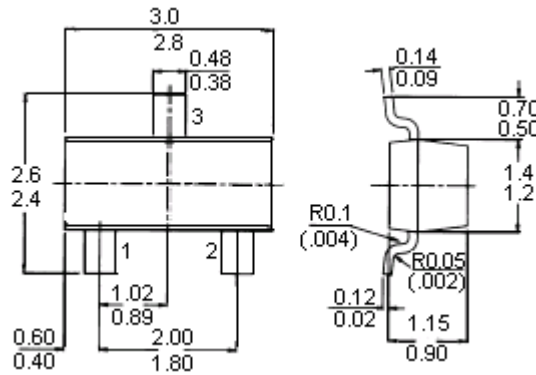
### SOT-23 Formed SMD Package

#### Pin Configuration

- 1 = Anode
- 2 = NC
- 3 = Cathode



#### Package Outline Details



Dimensions : Millimetres

Height	Width	Depth
1.12	3.05	2.5

Dimensions : Millimetres

### Absolute Maximum Ratings

Description	Symbol		Values	Unit
Continuous reverse voltage	$V_R$	maximum	30	V
Forward current	$I_F$		200	mA
Forward voltage at $I_F = 10\text{mA}$	$V_F$	<	400	mV
Total Power dissipation up to $T_{\text{amb}} = 25^\circ\text{C}$	$P_{\text{tot}}$	maximum	230	mW
Reverse recovery time when switched from $I_F = 10\text{mA}$ to $I_R = 10\text{mA}$ ; $R_L = 100\Omega$ ; measured at $I_R = 1\text{mA}$	$t_{\text{rr}}$	<	5	ns
Junction temperature	$T_j$	maximum	125	$^\circ\text{C}$

## Low Power Schottky Diodes

### Ratings (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

Description	Symbol		Values	Unit
Continuous reverse voltage	$V_R$	maximum	30	V
Forward current (DC)	$I_F$		200	mA
Forward voltage at $I_F = 10\text{mA}$	$V_F$	<	400	mV
Reverse recovery time when switched from $I_F = 10\text{mA}$ to $I_R = 10\text{mA}$ ; $R_L = 100\Omega$ ; measured at $I_R = 1\text{mA}$	$t_{rr}$	<	5	ns
Junction temperature	$T_j$	maximum	125	$^\circ\text{C}$
Total power dissipation up to $T_{amb} = 25^\circ\text{C}$	$P_{tot}$	maximum	230	mW
Storage temperature	$T_{stg}$		-55 to +150 $^\circ\text{C}$	
Junction temperature	$T_j$	maximum	125	$^\circ\text{C}$
<b>Thermal Resistance</b>				
From junction to ambient; mounted on a ceramic substrate of 10mm x 8mm x 0.6mm	$R_{th(j-a)}$	=	430	K/W
<b>Characteristics <math>T_{amb} = 25^\circ\text{C}</math> unless otherwise specified</b>				
Forward voltage $I_F = 0.1\text{mA}$ $I_F = 1\text{mA}^*$ $I_F = 10\text{mA}$ $I_F = 30\text{mA}^*$ $I_F = 100\text{mA}$	$V_F$	£ £ £ £ = £	240 320 400 500 500 1000	mV
Reverse current $V_R = 25\text{V}$	$I_R$	£	2	$\mu\text{A}$
Reverse breakdown voltage	$V_{(BR)R}$	>	30	V
Diode capacitance $V_R = 1\text{V}$ ; $f = 1\text{MHz}$	$C_d$	£	15	pF
Reverse recovery time when switched from $I_F = 10\text{mA}$ to $I_R = 10\text{mA}$ ; $R_L = 100\Omega$ ; measured at $I_R = 1\text{mA}$	$t_{rr}$	£	5	ns

\* Temperature coefficient of forward voltage:

-0.6% K at  $I_F = 1\text{mA}$

-0.3% K at  $I_F = 30\text{mA}$

# TBAT54



## Low Power Schottky Diodes

### Specifications

Connection	$V_{RRM}$ maximum (V)	$I_F$ maximum (mA)	$V_F$ maximum (V) at $I_F = 10\text{mA}$	Device Marking	Package	Part Number
Single Diode	30	300	0.4	4L	SOT - 23	TBAT54

**Notes:**

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