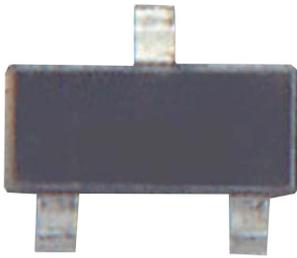


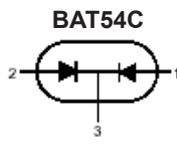
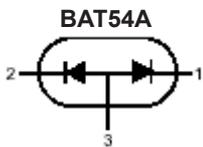
Low Power Schottky Diode



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

Absolute Maximum Ratings (per Diode):

Description	Symbol		Values	Unit
Continuous reverse voltage	V_R	Max.	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	Max.	125	$^{\circ}\text{C}$

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

Description	Symbol		Values	Unit
Continuous reverse voltage	V_R	Max.	30	V
Forward current (DC)	I_F		200	mA
Repetitive peak forward current	I_{FRM}		300	
Non-Repetitive peak forward current $t < 1\text{s}$	I_{FSM}		600	
Storage temperature	T_{stg}	-55 $^{\circ}\text{C}$ to +150 $^{\circ}\text{C}$		
Junction temperature	T_j	Max.	125	$^{\circ}\text{C}$

Thermal Resistance

From junction to ambient; mounted on a ceramic substrate of 10mm x 8mm x 0.6mm	$R_{th(j-a)}$	=	430	K/W
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Low Power Schottky Diode

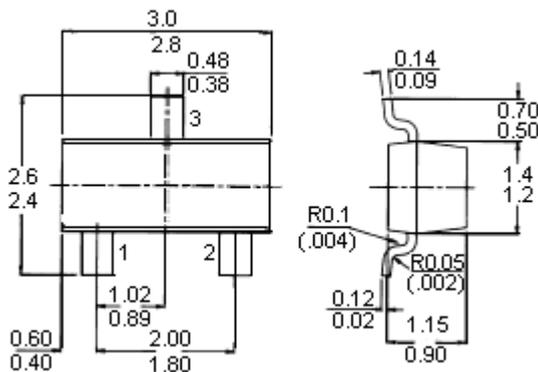


Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Description	Symbol		Values	Unit
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	Max. Max. Max. Max. Typ. Max.	240 320 400 500 500 1,000	mV
Reverse current $V_R = 25\text{V}$	I_R	<	2	μA
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 $I_F = 30\text{mA}$



Height (mm)	Width (mm)	Depth (mm)
1.12	3.05	2.5

Dimensions : Millimetres

Part Number Table

Description	Connection	V_{RRM} Max (V)	I_F Max (mA)	V_F Max. (V) at $I_F = 10\text{mA}$	Device Marking	Package	Part Number
Diode, Schottky, Dual	Double Diode	30	200	0.4	42	SOT - 23	TBAT54A
					L43		TBAT54C

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