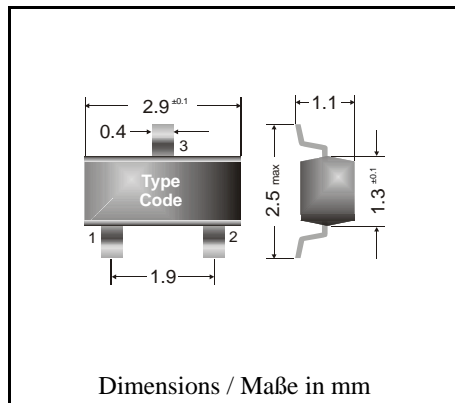


Surface mount Schottky-Barrier Single-/ Double-Diodes
Schottky-Barrier Einzel-/ Doppel-Dioden für die Oberflächenmontage

Version 2004-03-10



Power dissipation – Verlustleistung	310 mW
Repetitive peak reverse voltage Periodische Spitzensperrspannung	30 V
Plastic case Kunststoffgehäuse	SOT-23 (TO-236)
Weight approx. – Gewicht ca.	0.01 g
Standard packaging taped and reeled Standard Lieferform gegurtet auf Rolle	

Maximum ratings (T_A = 25°C)**Grenzwerte (T_A = 25°C)**

per diode / pro Diode		BAT54, BAT54A, BAT54C, BAT54S
Max. average forward current (dc) Dauerstrom	I _{FAV}	200 mA ¹⁾
Repetitive peak forward current Periodischer Spitzenstrom	I _{FRM}	300 mA ¹⁾
Peak forward surge current Stoßstrom-Grenzwert	t _p ≤ 10 ms I _{FSM} t _p ≤ 5 μs I _{FSM}	1 A 8 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	V _{RRM}	30 V
Junction temperature – Sperrschichttemperatur	T _j	125°C
Storage temperature – Lagerungstemperatur	T _s	- 55...+ 150°C

Characteristics (T_j = 25°C)**Kennwerte (T_j = 25°C)**

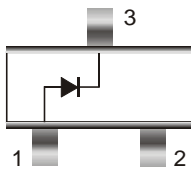
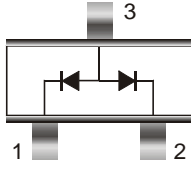
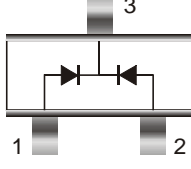
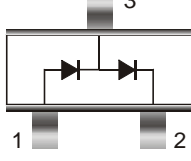
Forward voltage - Durchlaßspannung ²⁾	I _F = 0.1 mA	V _F	< 240 mV
	I _F = 1 mA	V _F	< 320 mV
	I _F = 10 mA	V _F	< 400 mV
	I _F = 30 mA	V _F	< 500 mV
	I _F = 100 mA	V _F	< 1000 mV
Leakage current - Sperrstrom ²⁾	V _R = 25 V	I _R	< 2 μA
	V _R = 30 V	I _R	< 3 μA

¹⁾ Mounted on P.C. board with 25 mm² copper pads at each terminal
 Montage auf Leiterplatte mit 25 mm² Kupferbelag (Lötpad) an jedem Anschluß

²⁾ Tested with pulses t_p = 300 μs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 μs, Schaltverhältnis ≤ 2%

Characteristics ($T_j = 25^\circ\text{C}$)Kennwerte ($T_j = 25^\circ\text{C}$)

Max. junction Capacitance – Max. Sperrschichtkapazität $V_R = 1 \text{ Vdc}, f = 1 \text{ MHz}$	C_T	10 pF
Reverse recovery time - Sperrverzug $I_F = 10 \text{ mA}$ über / through $I_R = 10 \text{ mA}$ bis / to $I_R = 1 \text{ mA}$	t_{rr}	< 5 ns
Critical rate of rise of voltage Kritische Spannungsanstiegsgeschwindigkeit	dv/dt	10000 V/ μs
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R_{thA}	420 K/W ¹⁾

Outline – Gehäuse	Pinning – Anschlußbelegung	Marking – Stempelung
	Single diode – Einzeldiode 1 = A 2 = n.c. 3 = K	BAT54 = L4 or / oder = KL1
	Double diode, common anode Doppeldiode, gemeins. Anode 1 = K1 2 = K2 3 = A1 / A2	BAT54A = L42 or / oder = KL2
	Double diode, common cathode Doppeldiode, gemeins. Katode 1 = A1 2 = A2 3 = K1 / K2	BAT54C = L43 or / oder = KL3
	Double diode, series connect. Doppeldiode, Reihenschaltung 1 = A1 2 = K2 3 = K1 / A2	BAT54S = L44 or / oder = KL4

¹⁾ Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Löt-pad) an jedem Anschluß