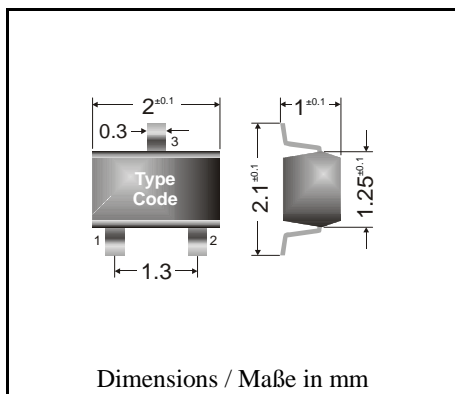


**Surface mount Schottky-Barrier Double-Diodes**  
**Schottky-Barrier Doppel-Dioden für die Oberflächenmontage**

Version 21.01.2004



Power dissipation – Verlustleistung	200 mW
Repetitive peak reverse voltage	30 V
Periodische Spitzensperrspannung	
Plastic case	SOT-323
Kunststoffgehäuse	
Weight approx. – Gewicht ca.	0.01 g
Standard packaging taped and reeled	
Standard Lieferform gegurtet auf Rolle	

**Maximum ratings (T<sub>A</sub> = 25° C)****Grenzwerte (T<sub>A</sub> = 25° C)**

per diode / pro Diode		<b>BAT54W-series</b>
Max. average forward current (dc) Dauergrenzstrom	I <sub>FAV</sub>	200 mA <sup>1)</sup>
Repetitive peak forward current Periodischer Spitzenstrom	I <sub>FRM</sub>	300 mA <sup>1)</sup>
Peak forward surge current Stoßstrom-Grenzwert	t <sub>p</sub> ≤ 10 ms I <sub>FSM</sub>	1 A
	t <sub>p</sub> ≤ 5 μs I <sub>FSM</sub>	8 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	V <sub>RRM</sub>	30 V
Junction temperature – Sperrschichttemperatur	T <sub>j</sub>	125° C
Storage temperature – Lagerungstemperatur	T <sub>S</sub>	- 55...+ 150° C

**Characteristics (T<sub>j</sub> = 25° C)****Kennwerte (T<sub>j</sub> = 25° C)**

Forward voltage - Durchlaßspannung <sup>2)</sup>	I <sub>F</sub> = 0.1 mA	V <sub>F</sub>	< 240 mV
	I <sub>F</sub> = 1 mA	V <sub>F</sub>	< 320 mV
	I <sub>F</sub> = 10 mA	V <sub>F</sub>	< 400 mV
	I <sub>F</sub> = 30 mA	V <sub>F</sub>	< 500 mV
	I <sub>F</sub> = 100 mA	V <sub>F</sub>	< 650 mV
Leakage current - Sperrstrom <sup>2)</sup>	V <sub>R</sub> = 25 V	I <sub>R</sub>	< 2 μA
	V <sub>R</sub> = 30 V	I <sub>R</sub>	< 3 μA

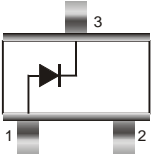
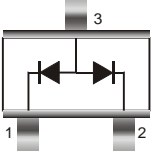
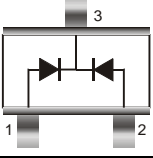
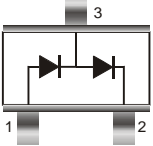
<sup>1)</sup> Mounted on P.C. board with 25 mm<sup>2</sup> copper pads at each terminal

Montage auf Leiterplatte mit 25 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluß

<sup>2)</sup> Tested with pulses t<sub>p</sub> = 300 μs, duty cycle ≤ 2% – Gemessen mit Impulsen t<sub>p</sub> = 300 μs, Schaltverhältnis ≤ 2%

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

Max. junction Capacitance – Max. Sperrschichtkapazität $V_R = 1\text{ Vdc}, f = 100\text{ kHz} \dots 1\text{ MHz}$	$C_T$	10 pF
Reverse recovery time - Sperrverzögerung $I_F = 10\text{ mA}$ 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/ $\mu\text{s}$
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	$R_{thA}$	620 K/W <sup>1)</sup>

Outline – Gehäuse	Pinning – Anschlußbelegung	Marking – Stempelung
	Single diode – Einzeldiode  1 = A 2 = n.c. 3 = K	BAT54W = L4 or / oder KL1
	Double diode, common anode Doppeldiode, gemeins. Anode  1 = K1 2 = K2 3 = A1 / A2	BAT54AW = 42 or / oder KL2
	Double diode, common cathode Doppeldiode, gemeins. Katode  1 = A1 2 = A2 3 = K1 / K2	BAT54CW = 43 or / oder KL3
	Double diode, series connect. Doppeldiode, Reihenschaltung  1 = A1 2 = K2 3 = K1 / A2	BAT54SW = 44 or / oder KL4

<sup>1)</sup> Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal  
Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluß