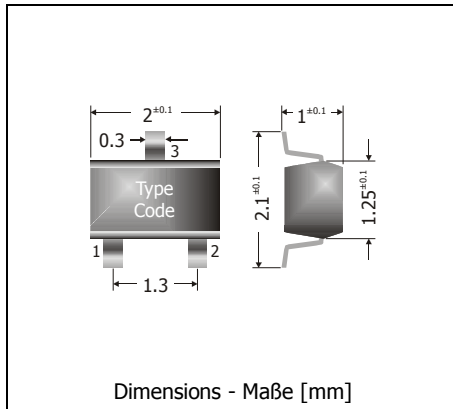



## BAT54W

### Surface Mount Schottky-Barrier Double-Diodes Schottky-Barrier Doppel-Dioden für die Oberflächenmontage

Version 2014-08-21



Power dissipation – Verlustleistung <sup>1)</sup>	200 mW <sup>2)</sup>
Repetitive peak reverse voltage Periodische Spitzensperrspannung	30 V
Plastic case Kunststoffgehäuse	SOT-323
Weight approx. – Gewicht ca.	0.01 g
Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert	
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	BAT54W-series	
Max. average forward current – Dauergrenzstrom (dc)	I <sub>FAV</sub>	200 mA <sup>2)</sup>
Repetitive peak forward current – Periodischer Spitzenstrom	I <sub>FRM</sub>	300 mA <sup>2)</sup>
Non repetitive 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°

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

#### Kennwerte (T<sub>j</sub> = 25°C)

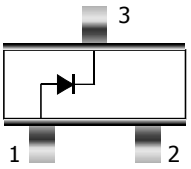
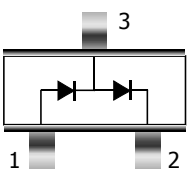
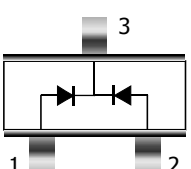
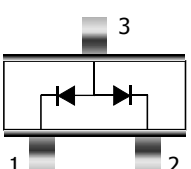
Forward voltage Durchlass-Spannung	I <sub>F</sub> = 0.1 mA	V <sub>F</sub>	< 240 mV
	I <sub>F</sub> = 1 mA	V <sub>F</sub>	< 320 mV
	I <sub>F</sub> = 10 mA	V <sub>F</sub>	< 400 mV
	I <sub>F</sub> = 30 mA	V <sub>F</sub>	< 500 mV
	I <sub>F</sub> = 100 mA	V <sub>F</sub>	< 650 mV
Leakage current – Sperrstrom <sup>3)</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
Max. junction capacitance – Max. Sperrschichtkapazität V <sub>R</sub> = 1 V <sub>dc</sub> , f = 100 kHz ... 1 MHz		C <sub>T</sub>	10 pF
Reverse recovery time – Sperrverzug I <sub>F</sub> = 10 mA über/through I <sub>R</sub> = 10 mA bis/to I <sub>R</sub> = 1 mA		t <sub>rr</sub>	< 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 <sub>thA</sub>	620 K/W <sup>4)</sup>

1 Total power dissipation of both diodes – Summe der Verlustleistungen beider Dioden

2 Mounted on P.C. board with 25 mm<sup>2</sup> copper pad at each terminal  
Montage auf Leiterplatte mit 25 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluss

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

4 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

Outline – Gehäuse	Pinning – Anschlussbelegung	Marking – Stempelung
	Single diode – Einzeldiode 1 = A 2 = n.c. 3 = K	BAT54W = L4 or / oder KL1
	Double diode, series connection Doppeldiode, Reihenschaltung 1 = A1 2 = K2 3 = K1/ A2	BAT54SW = L44 or / oder KL4
	Double diode, common cathode Doppeldiode, gemeinsame Kathode 1 = A1 2 = A2 3 = K1/ K2	BAT54CW = L43 or / oder KL3
	Double diode, common anode Doppeldiode, gemeinsame Anode 1 = K1 2 = K2 3 = A1/ A2	BAT54AW = L42 or / oder KL2

