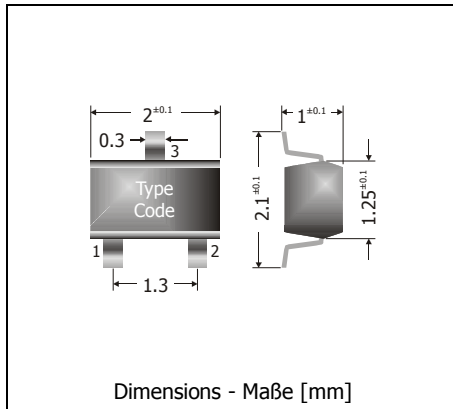



BAT54W

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

Version 2014-08-21



Power dissipation – Verlustleistung ¹⁾	200 mW ²⁾
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_A = 25°C)

Grenzwerte (T_A = 25°C)

per diode / pro Diode	BAT54W-series	
Max. average forward current – Dauergrenzstrom (dc)	I _{FAV}	200 mA ²⁾
Repetitive peak forward current – Periodischer Spitzenstrom	I _{FRM}	300 mA ²⁾
Non repetitive peak forward surge current Stoßstrom-Grenzwert	T _p ≤ 10 ms	I _{FSM} 1 A
	T _p ≤ 5 μs	I _{FSM} 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°

Characteristics (T_j = 25°C)

Kennwerte (T_j = 25°C)

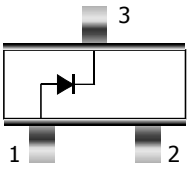
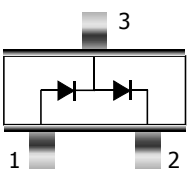
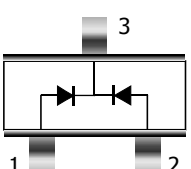
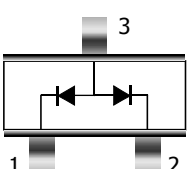
Forward voltage Durchlass-Spannung	I _F = 0.1 mA	V _F	< 240 mV
	I _F = 1 mA	V _F	< 320 mV
	I _F = 10 mA	V _F	< 400 mV
	I _F = 30 mA	V _F	< 500 mV
	I _F = 100 mA	V _F	< 650 mV
Leakage current – Sperrstrom ³⁾	V _R = 25 V	I _R	< 2 μA
	V _R = 30 V	I _R	< 3 μA
Max. junction capacitance – Max. Sperrschichtkapazität V _R = 1 V _{dc} , f = 100 kHz ... 1 MHz		C _T	10 pF
Reverse recovery time – Sperrverzug I _F = 10 mA über/through I _R = 10 mA bis/to I _R = 1 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}	620 K/W ⁴⁾

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

2 Mounted on P.C. board with 25 mm² copper pad at each terminal
Montage auf Leiterplatte mit 25 mm² Kupferbelag (Lötpad) an jedem Anschluss

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

4 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² 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

