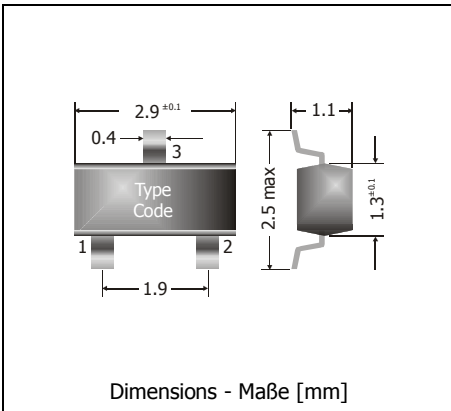


**BAT54**  
**Surface Mount Schottky Barrier Single/Dual Diodes**  
**Schottky-Barrier Einzel-/Doppel-Dioden für die Oberflächenmontage**

Version 2011-10-10



Power dissipation – Verlustleistung	310 mW
Repetitive peak reverse voltage	30 V
Periodische Spitzensperrspannung	
Plastic case	SOT-23
Kunststoffgehäuse	(TO-236)
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	BAT54-series	
Power dissipation – Verlustleistung <sup>1)</sup>	P <sub>tot</sub>	310 mW <sup>2)</sup>
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	I <sub>FSM</sub>	600 mA
	t <sub>p</sub> ≤ 1 s	
Repetitive peak reverse voltage – Periodische Spitzensperrspannung	V <sub>RRM</sub>	30 V
Junction temperature – Sperrschichttemperatur	T <sub>j</sub>	-55...+150°C
Storage temperature – Lagerungstemperatur	T <sub>s</sub>	-55...+150°C

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

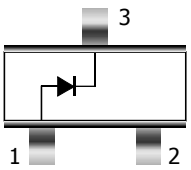
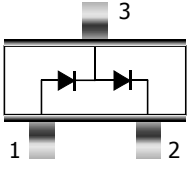
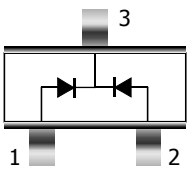
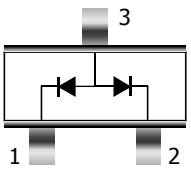
**Kennwerte (T<sub>j</sub> = 25°C)**

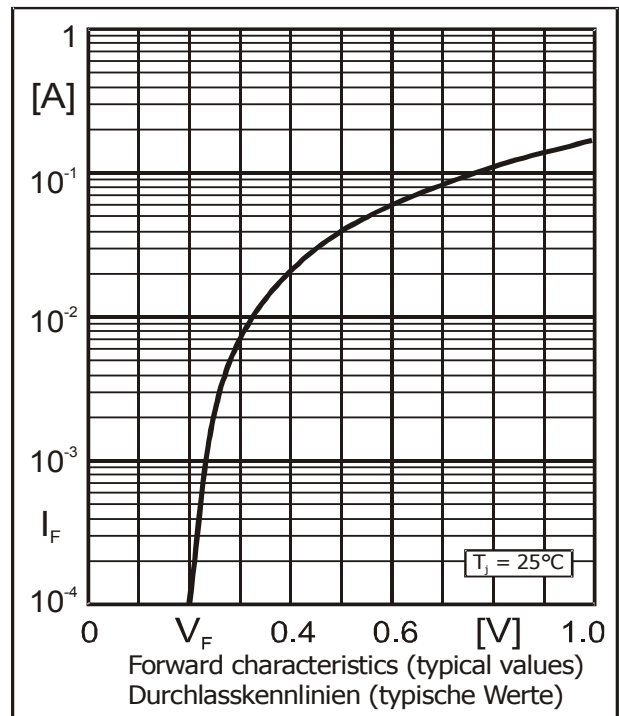
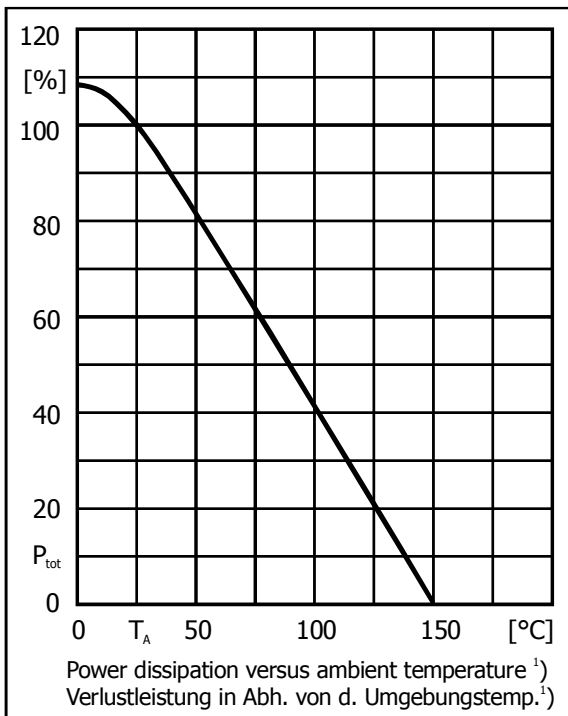
Forward voltage Durchlass-Spannung	I <sub>F</sub> = 0.1 mA	V <sub>F</sub>	< 240 mV
	I <sub>F</sub> = 1 mA	V <sub>F</sub>	< 320 mV
	I <sub>F</sub> = 10 mA	V <sub>F</sub>	< 400 mV
	I <sub>F</sub> = 30 mA	V <sub>F</sub>	< 500 mV
	I <sub>F</sub> = 100 mA	V <sub>F</sub>	< 1000 mV
Leakage current – Sperrstrom <sup>3)</sup>	V <sub>R</sub> = 25 V	I <sub>R</sub>	< 2 µA
Max. junction capacitance – Max. Sperrschichtkapazität V <sub>R</sub> = 0 V, f = 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
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft		R <sub>thA</sub>	< 400 K/W <sup>2)</sup>

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

2 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 (Löt-pad) 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%

Pinning – Anschlussbelegung		Marking – Stempelung
	Single diode einzelne Diode  1 = A 2 = n.c. 3 = C	BAT54 = L4
	Dual diode, series connection Doppeldiode, Reihenschaltung  1 = A1 2 = C2 3 = C1/A2	BAT54S = L44
	Dual diode, common cathode Doppeldiode, gemeinsame Kathode  1 = A1 2 = A2 3 = C1/C2	BAT54C = L43
	Dual diode, common anode Doppeldiode, gemeinsame Anode  1 = C1 2 = C2 3 = A1/A2	BAT54A = L42



1 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 (Löt-pad) an jedem Anschluss