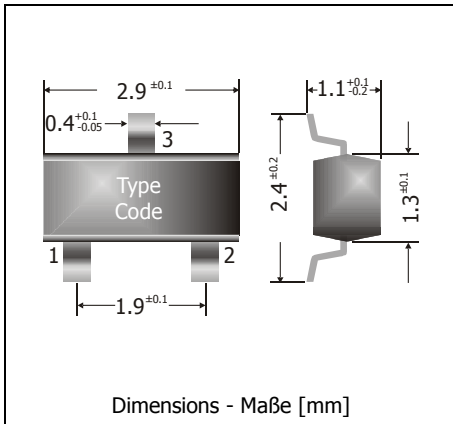



**BAS40, BAS40-04, BAS40-05, BAS40-06**  
**Surface Mount Schottky Barrier Single/Double Diodes**  
**Schottky-BARRIER Einzel-/Doppel-Dioden für die Oberflächenmontage**

Version 2015-05-12



Power dissipation – Verlustleistung	310 mW
Repetitive peak reverse voltage Periodische Spitzensperrspannung	40 V
Plastic case Kunststoffgehäuse	SOT-23 (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	<b>BAS40-series</b>	
Power dissipation – Verlustleistung <sup>1)</sup>	P <sub>tot</sub>	310 mW <sup>2)</sup>
Max. average forward current (dc) Dauerstrom	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> ≤ 1 s	I <sub>FSM</sub> 0.6 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	V <sub>RRM</sub>	40 V
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur	T <sub>j</sub> T <sub>s</sub>	-55...+150°C -55...+150°C

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

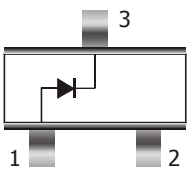
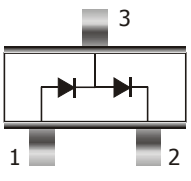
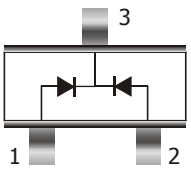
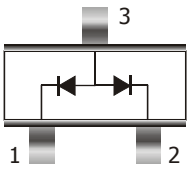
**Kennwerte (T<sub>j</sub> = 25°C)**

Forward voltage <sup>3)</sup> Durchlass-Spannung <sup>3)</sup>	I <sub>F</sub> = 1 mA	V <sub>F</sub>	< 380 mV
	I <sub>F</sub> = 10 mA	V <sub>F</sub>	< 500 mV
	I <sub>F</sub> = 40 mA	V <sub>F</sub>	< 1.00 V
Leakage current Sperrstrom	V <sub>R</sub> = 30 V	I <sub>R</sub>	< 200 nA
	V <sub>R</sub> = 40 V	I <sub>R</sub>	< 10 µA
Max. junction capacitance – Max. Sperrschichtkapazität V <sub>R</sub> = 0 V, f = 1 MHz		C <sub>T</sub>	5 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 Einzeldiode  1 = A    2 = n.c./frei    3 = C	BAS40 = 43
	Dual diode, series connection Doppeldiode, Reihenschaltung  1 = A1    2 = C2    3 = C1/A2	BAS40-04 = 44
	Dual diode, common cathode Doppeldiode, gemeinsame Katode  1 = A1    2 = A2    3 = C1/C2	BAS40-05 = 45
	Dual diode, common anode Doppeldiode, gemeinsame Anode  1 = C1    2 = C2    3 = A1/A2	BAS40-06 = 46

