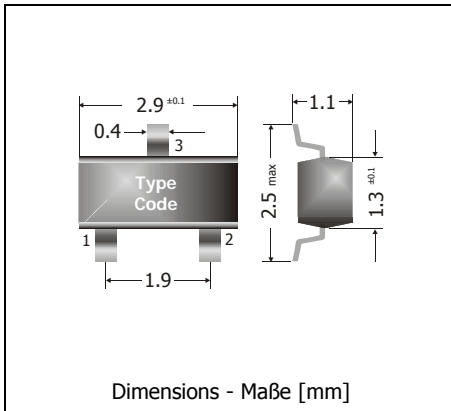


**BAS40, BAS40-04, BAS40-05, BAS40-06**

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

Version 2005-06-21



Power dissipation – Verlustleistung 310 mW  
 Repetitive peak reverse voltage 40 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	BAS40-series	
Power dissipation – Verlustleistung <sup>1)</sup>	P <sub>tot</sub>	310 mW <sup>2)</sup>
Max. average forward current (dc) Dauergrenzstrom	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>	0.6 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	V <sub>R RM</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)**

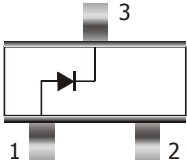
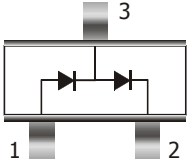
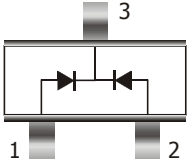
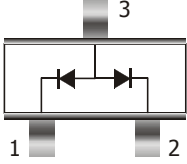
**Kennwerte (T<sub>j</sub> = 25°C)**

Forward voltage <sup>3)</sup> Durchlass-Spannung <sup>3)</sup>	I <sub>F</sub> = 1 mA I <sub>F</sub> = 10 mA I <sub>F</sub> = 40 mA	V <sub>F</sub> V <sub>F</sub> V <sub>F</sub>	< 380 mV < 500 mV < 1.00 V
Leakage current Sperrstrom	V <sub>R</sub> = 30 V V <sub>R</sub> = 40 V	I <sub>R</sub> I <sub>R</sub>	< 200 nA < 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

