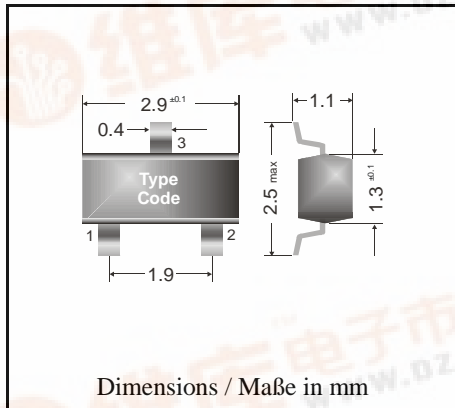


Surface mount Schottky-Barrier Single-/ Double-Diodes  
Schottky-Barrier Einzel-/ Doppel-Dioden für die Oberflächenmontage

Version 2004-04-09



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
Standard packaging taped and reeled Standard Lieferform gerurtet 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	P <sub>tot</sub>	310 mW <sup>1)</sup>
Max. average forward current (dc) Dauergrenzstrom	I <sub>FAV</sub>	200 mA <sup>1)</sup>
Repetitive peak forward current Periodischer Spitzenstrom	I <sub>FRM</sub>	300 mA <sup>1)</sup>
Peak forward surge current t <sub>p</sub> # 1 s Stoßstrom-Grenzwert	I <sub>FSM</sub>	600 mA
Repetitive peak reverse voltage Periodische Spitzensperrspannung	V <sub>RRM</sub>	40 V
Junction temperature – Sperrschichttemperatur	T <sub>j</sub>	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 - Durchlaßspannung <sup>2)</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>	< 1000 mV
Leakage current - Sperrstrom <sup>2)</sup>	V <sub>R</sub> = 30 V	I <sub>R</sub>	< 200 nA
	V <sub>R</sub> = 40 V	I <sub>R</sub>	< 10 : A

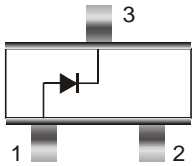
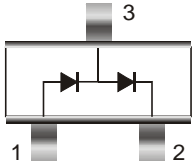
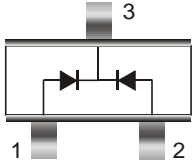
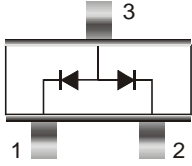
<sup>1)</sup> Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal  
Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Löt-pad) an jedem Anschluß

<sup>2)</sup> Tested with pulses t = 300 : s. duty cycle # 2% – Gemessen mit Impulsen t = 300 : s. Schaltverhältnis # 2%



Characteristics ( $T_j = 25^\circ\text{C}$ )Kennwerte ( $T_j = 25^\circ\text{C}$ )

Max. junction Capacitance – Max. Sperrschichtkapazität $V_R = 0\text{ V}, f = 1\text{ MHz}$	$C_T$	5 pF
Reverse recovery time - Sperrverzögerung $I_F = 10\text{ mA}$ über / through $I_R = 10\text{ mA}$ bis / to $I_R = 1\text{ mA}$	$t_{rr}$	< 5 ns
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	$R_{thA}$	400 K/W <sup>3)</sup>

Outline – Gehäuse	Pinning – Anschlußbelegung	Marking – Stempelung
	Single diode – Einzeldiode  1 = A 2 = n.c. 3 = K	BAS40 = 43
	Double diode, series connect. Doppeldiode, Reihenschaltung  1 = A1 2 = K2 3 = K1 / A2	BAS40-04 = 44
	Double diode, common cathode Doppeldiode, gemeins. Katode  1 = A1 2 = A2 3 = K1 / K2	BAS40-05 = 45
	Double diode, common anode Doppeldiode, gemeins. Anode  1 = K1 2 = K2 3 = A1 / A2	BAS40-06 = 46

<sup>3)</sup> 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