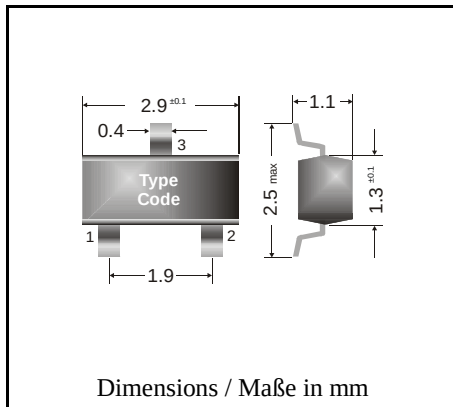


Surface mount Schottky-Barrier Single-/ Double-Diodes
Schottky-Barrier Einzel-/ Doppel-Dioden für die Oberflächenmontage

Version 2004-04-09



Power dissipation – Verlustleistung	310 mW
Repetitive peak reverse voltage	40 V
Periodische Spitzensperrspannung	
Plastic case	SOT-23
Kunststoffgehäuse	(TO-236)
Weight approx. – Gewicht ca.	0.01 g
Standard packaging taped and reeled	
Standard Lieferform gegurtet auf Rolle	

Maximum ratings ($T_A = 25/^\circ\text{C}$)**Grenzwerte ($T_A = 25/^\circ\text{C}$)**

per diode / pro Diode		BAS40-series
Power dissipation – Verlustleistung	P_{tot}	310 mW ¹⁾
Max. average forward current (dc) Dauergrenzstrom	I_{FAV}	200 mA ¹⁾
Repetitive peak forward current Periodischer Spitzenstrom	I_{FRM}	300 mA ¹⁾
Peak forward surge current $t_p \# 1 \text{ s}$ Stoßstrom-Grenzwert	I_{FSM}	600 mA
Repetitive peak reverse voltage Periodische Spitzensperrspannung	V_{RRM}	40 V
Junction temperature – Sperrschichttemperatur	T_j	150/ $^\circ\text{C}$
Storage temperature – Lagerungstemperatur	T_s	- 55...+ 150/ $^\circ\text{C}$

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

Forward voltage - Durchlaßspannung ²⁾	$I_F = 1 \text{ mA}$	V_F	< 380 mV
	$I_F = 10 \text{ mA}$	V_F	< 500 mV
	$I_F = 40 \text{ mA}$	V_F	< 1000 mV
Leakage current - Sperrstrom ²⁾	$V_R = 30 \text{ V}$	I_R	< 200 nA
	$V_R = 40 \text{ V}$	I_R	< 10 μA

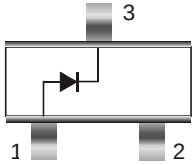
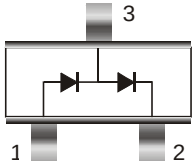
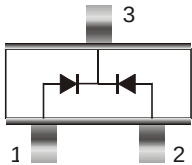
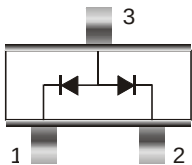
¹⁾ Mounted on P.C. board with 3 mm² copper pad at each terminal

Montage auf Leiterplatte mit 3 mm² Kupferbelag (Löt-pad) an jedem Anschluß

²⁾ Tested with pulses $t_p = 300 \mu\text{s}$, duty cycle # 2% – Gemessen mit Impulsen $t_p = 300 \mu\text{s}$, 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 ³⁾

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

³⁾ Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Löt-pad) an jedem Anschluß