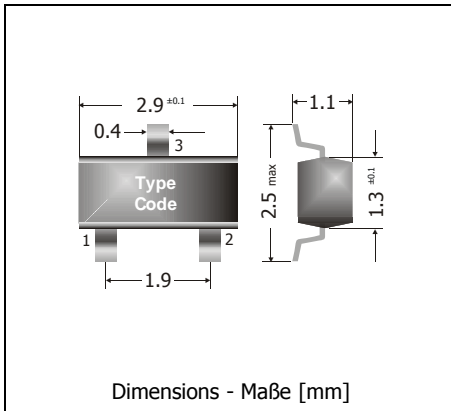


BAS40, BAS40-04, BAS40-05, BAS40-06

**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_A = 25°C)

Grenzwerte (T_A = 25°C)

per diode / pro Diode	BAS40-series	
Power dissipation – Verlustleistung ¹⁾	P _{tot}	310 mW ²⁾
Max. average forward current (dc) Dauergrenzstrom	I _{FAV}	200 mA ²⁾
Repetitive peak forward current Periodischer Spitzenstrom	I _{FRM}	300 mA ²⁾
Non repetitive peak forward surge current Stoßstrom-Grenzwert	I _{FSM}	0.6 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	V _R RM	40 V
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur	T _j T _S	-55...+150°C -55...+150°C

Characteristics (T_j = 25°C)

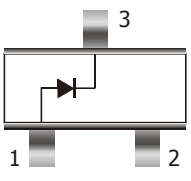
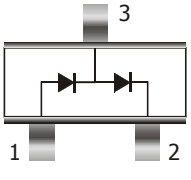
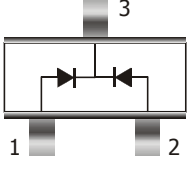
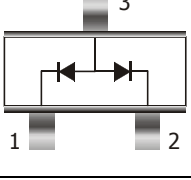
Kennwerte (T_j = 25°C)

Forward voltage ³⁾ Durchlass-Spannung ³⁾	I _F = 1 mA I _F = 10 mA I _F = 40 mA	V _F V _F V _F	< 380 mV < 500 mV < 1.00 V
Leakage current Sperrstrom	V _R = 30 V V _R = 40 V	I _R I _R	< 200 nA < 10 µA
Max. junction capacitance – Max. Sperrschichtkapazität V _R = 0 V, f = 1 MHz		C _T	5 pF
Reverse recovery time – Sperrverzug I _F = 10 mA über/through I _R = 10 mA bis/to I _R = 1 mA		t _{rr}	< 5 ns
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft		R _{thA}	< 400 K/W ²⁾

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

2 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

3 Tested with pulses t_p = 300 µs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 µs, Schaltverhältnis ≤ 2%

Pinning – Anschlussbelegung		Marking – Stempelung
	<p>Single Diode Einzeldiode</p> <p>1 = A 2 = n.c./frei 3 = C</p>	BAS40 = 43
	<p>Dual diode, series connection Doppeldiode, Reihenschaltung</p> <p>1 = A1 2 = C2 3 = C1/A2</p>	BAS40-04 = 44
	<p>Dual diode, common cathode Doppeldiode, gemeinsame Katode</p> <p>1 = A1 2 = A2 3 = C1/C2</p>	BAS40-05 = 45
	<p>Dual diode, common anode Doppeldiode, gemeinsame Anode</p> <p>1 = C1 2 = C2 3 = A1/A2</p>	BAS40-06 = 46

