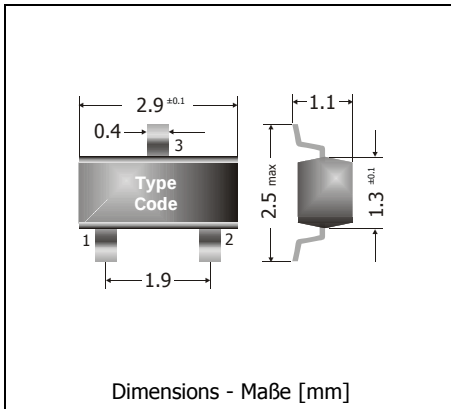


BAS40, BAS40-04, BAS40-05, BAS40-06
Surface Mount Schottky Barrier Single/Double Diodes
Schottky-Barrier Einzel-/Doppel-Dioden für die Oberflächenmontage

Version 2005-06-21



Power dissipation – Verlustleistung	310 mW
Repetitive peak reverse voltage 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_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 _{RRM}	40 V
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur	T _j T _S	-55...+150°C -55...+150°C

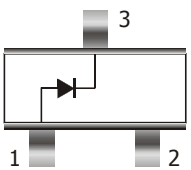
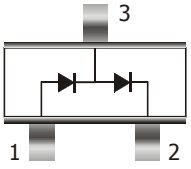
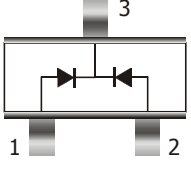
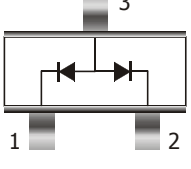
Characteristics (T_j = 25°C)**Kennwerte (T_j = 25°C)**

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 – Sperrverzögerung 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 (Lötpad) 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
	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

