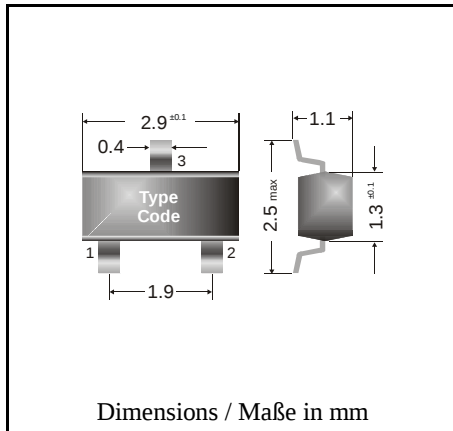


**Surface mount Schottky-Barrier Single-/ Double-Diodes**  
**Schottky-Barrier Einzel-/ Doppel-Dioden für die Oberflächenmontage**

Version 2004-04-09



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

**Maximum ratings ( $T_A = 25/C$ )****Grenzwerte ( $T_A = 25/C$ )**

| per diode / pro Diode                                               |           | <b>BAS70-series</b>  |
|---------------------------------------------------------------------|-----------|----------------------|
| Power dissipation – Verlustleistung                                 | $P_{tot}$ | 310 mW <sup>1)</sup> |
| Max. average forward current (dc)<br>Dauergrenzstrom                | $I_{FAV}$ | 200 mA <sup>1)</sup> |
| Repetitive peak forward current<br>Periodischer Spitzenstrom        | $I_{FRM}$ | 300 mA <sup>1)</sup> |
| Peak forward surge current $t_p \# 1$ s<br>Stoßstrom-Grenzwert      | $I_{FSM}$ | 500 mA               |
| Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung | $V_{RRM}$ | 70 V                 |
| Junction temperature – Sperrschichttemperatur                       | $T_j$     | 150/C                |
| Storage temperature – Lagerungstemperatur                           | $T_s$     | - 55...+ 150/C       |

**Characteristics ( $T_j = 25/C$ )****Kennwerte ( $T_j = 25/C$ )**

|                                                  |               |       |           |
|--------------------------------------------------|---------------|-------|-----------|
| Forward voltage - Durchlaßspannung <sup>2)</sup> | $I_F = 1$ mA  | $V_F$ | < 410 mV  |
|                                                  | $I_F = 15$ mA | $V_F$ | < 1000 mV |
| Leakage current - Sperrstrom <sup>2)</sup>       | $V_R = 50$ V  | $I_R$ | < 100 nA  |

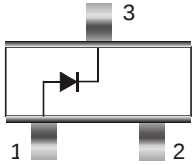
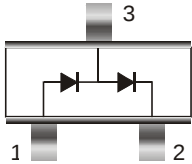
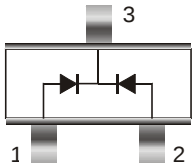
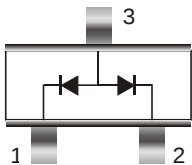
<sup>1)</sup> Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal

Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Löt-pad) an jedem Anschluß

<sup>2)</sup> Tested with pulses  $t_p = 300 \mu$ s, duty cycle # 2% – Gemessen mit Impulsen  $t_p = 300 \mu$ s, Schaltverhältnis # 2%

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

|                                                                                                                                   |           |                       |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------|
| Max. junction Capacitance – Max. Sperrschichtkapazität<br>$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$                                 | $C_T$     | 2 pF                  |
| Reverse recovery time - Sperrverzögerung<br>$I_F = 10\text{ mA}$ über / through $I_R = 10\text{ mA}$ bis / to $I_R = 1\text{ mA}$ | $t_{rr}$  | < 5 ns                |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft                                       | $R_{thA}$ | 400 K/W <sup>3)</sup> |

| Outline – Gehäuse                                                                   | Pinning – Anschlußbelegung                                                                     | Marking – Stempelung |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------|
|    | Single diode – Einzeldiode<br><br>1 = A 2 = n.c. 3 = K                                         | BAS70 = 73           |
|   | Double diode, series connect.<br>Doppeldiode, Reihenschaltung<br><br>1 = A1 2 = K2 3 = K1 / A2 | BAS70-04 = 74        |
|  | Double diode, common cathode<br>Doppeldiode, gemeins. Katode<br><br>1 = A1 2 = A2 3 = K1 / K2  | BAS70-05 = 75        |
|  | Double diode, common anode<br>Doppeldiode, gemeins. Anode<br><br>1 = K1 2 = K2 3 = A1 / A2     | BAS70-06 = 76        |

<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 (Löt-pad) an jedem Anschluß