EN: This Datasheet/Document is presented by the manufacturer.

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Diotec Semiconductor

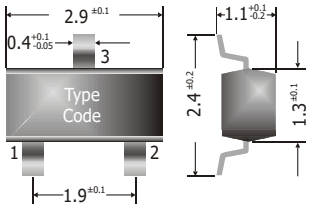
BAS70, BAS70-04, BAS70-05, BAS70-06

SMD Small Signal Schottky Diodes
SMD Kleinsignal-Schottkydioden

I_{FAV} = 70 mA V_{RRM} = 70 V
V_{F1} < 0.41 V I_{FSM} = 100 mA
T_{jmax} = 150°C t_{rr} < 5 ns

Version 2018-11-22

SOT-23
(TO-236)



Dimensions - Maße [mm]

Typical Applications
Signal processing, High-speed switching, Polarity protection
Commercial grade
Suffix -Q: AEC-Q101 compliant [1])
Suffix -AQ: in AEC-Q101 qualification [1])

Typische Anwendungen
Signalverarbeitung, Schnelles Schalten, Verpolschutz
Standardausführung
Suffix -Q: AEC-Q101 konform [1])
Suffix -AQ: in AEC-Q101 Qualifikation [1])

Features
Very high switching speed
Low junction capacitance
Low leakage current
Compliant to RoHS, REACH, Conflict Minerals [1])

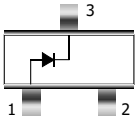
Besonderheiten
Extrem schnelles Schalten
Niedrige Sperrschicht-Kapazität
Niedriger Sperrstrom
Konform zu RoHS, REACH, Konfliktmineralien [1])

Mechanical Data [1])

Taped and reeled	3000 / 7"	Gegurtet auf Rolle
Weight approx.	0.01 g	Gewicht ca.
Solder & assembly conditions	260°C/10s MSL = 1	Löt- und Einbaubedingungen

BAS70

Single Diode

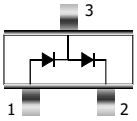


Type Code 73

1 = A 2 = n. c. 3 = C

BAS70-04/-Q

Series Connection

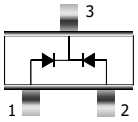


Type Code 74

1 = A1 2 = C2 3 = C1/A2

BAS70-05/-Q

Common Cathode

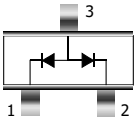


Type Code 75

1 = A1 2 = A2 3 = C1/C2

BAS70-06

Common Anode



Type Code 76

1 = C1 2 = C2 3 = A1/A2

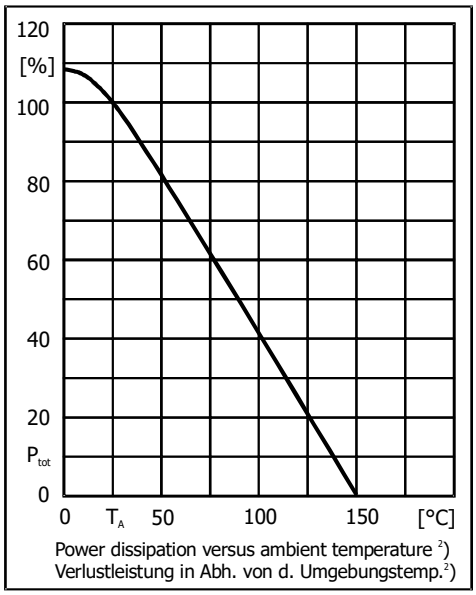
Maximum ratings [2]) **Grenzwerte [2])**

Power dissipation – Verlustleistung [3])		P_{tot}	200 mW [4])
Max. average forward current – Dauergrenzstrom	DC	I_{FAV}	70 mA [4])
Repetitive peak forward current – Periodischer Spitzenstrom		I_{FRM}	70 mA [4])
Non repetitive peak forward surge current – Stoßstrom-Grenzwert	$t_p \le 1$ s	I_{FSM}	100 mA
Repetitive peak reverse voltage – Periodische Spitzensperrspannung		V_{RRM}	70 V
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur		T_j T_S	-55...+150°C -55...+150°C

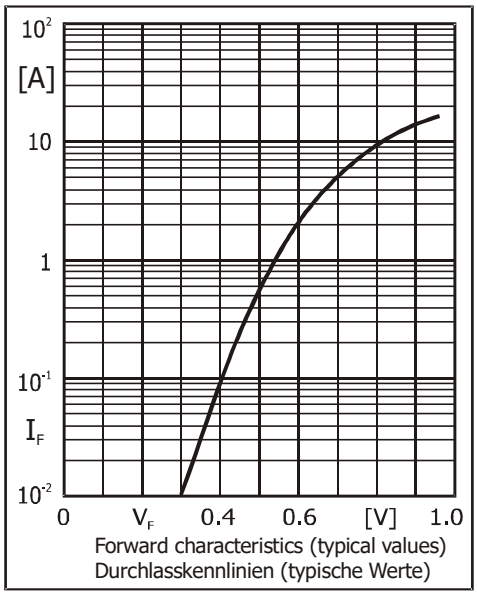
1 Please note the detailed information on our website or at the beginning of the data book
Bitte beachten Sie die detaillierten Hinweise auf unserer Internetseite bzw. am Anfang des Datenbuches
2 T_A = 25°C and per diode, unless otherwise specified – T_A = 25°C und pro Diode, wenn nicht anders angegeben
3 Total power dissipation of both diodes – Summe der Verlustleistungen beider Dioden
4 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss

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Characteristics				**Kennwerte**
Forward voltage Durchlass-Spannung	T_j = 25°C	I_F = 1 mA I_F = 15 mA	V_F	< 410 mV < 1000 mV
Leakage current Sperrstrom	T_j = 25°C	V_R = 50 V	I_R	< 100 nA [1])
Breakdown voltage Abbruchspannung	T_j = 25°C	I_R = 10 µA	V_{BR}	> 70 V [1])
Max. junction capacitance Max. Sperrschichtkapazität	V_R = 0 V, f = 1 MHz		C_T	2 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
Typical thermal resistance junction to ambient Typischer Wärmewiderstand Sperrschicht – Umgebung			R_{thA}	625 K/W [2])



Power dissipation versus ambient temperature [2])
Verlustleistung in Abh. von d. Umgebungstemp.[2])



Forward characteristics (typical values)
Durchlasskennlinien (typische Werte)

Disclaimer: See data book page 2 or website
Haftungssauschluss: Siehe Datenbuch Seite 2 oder Internet

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

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