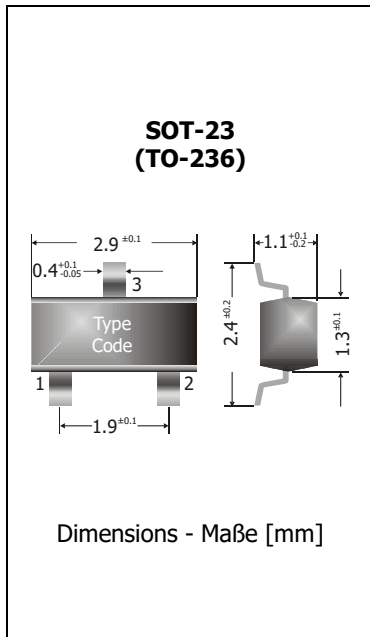


BAS16, BAW56, BAV70, BAV99, BAV199 SMD Small Signal Diodes SMD Kleinsignal-Dioden	I_{FAV} = 215 mA V_{F1} < 715 mV T_{jmax} = 150°C	V_{RRM} = 85, 100 V I_{FSM} = 2 A t_{rr1} < 4 ns
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Version 2019-06-13



Typical Applications

Signal processing, (High-speed)
Switching, Rectifying
Commercial grade
Suffix -Q: AEC-Q101 compliant ¹⁾
Suffix -AQ: in AEC-Q101 qualification ¹⁾

Features

BAV199: Extremely low leakage
BAS16, BAW56, BAV99, BAV70:
Very high switching speed
Compliant to RoHS, REACH,
Conflict Minerals ¹⁾

Mechanical Data ¹⁾

Taped and reeled
Weight approx.
Case material
Solder & assembly conditions



3000 / 7"
0.01 g
UL 94V-0
260°C/10s
MSL = 1

Typische Anwendungen

Signalverarbeitung, (Schnelles)
Schalten, Gleichrichten
Standardausführung
Suffix -Q: AEC-Q101 konform ¹⁾
Suffix -AQ: in AEC-Q101 Qualifikation ¹⁾

Besonderheiten

BAV199: Extrem niedriger Sperrstrom
BAS16, BAW56, BAV99, BAV70:
Sehr schnelles Schalten
Konform zu RoHS, REACH,
Konfliktmineralien ¹⁾

Mechanische Daten ¹⁾

Gegurtet auf Rolle
Gewicht ca.
Gehäusematerial
Löt- und Einbaubedingungen

BAS16/-AQ Single Diode 1 = A 2 = n. c. 3 = C Type Code 5D	BAV70/-Q/-AQ Common Cathode 1 = A1 2 = A2 3 = C1/C2 Type Code A4
BAW56/-Q Common Anode 1 = C1 2 = C2 3 = A1/A2 Type Code A1	BAV99/-Q/-AQ BAV199/-Q/-AQ Series Connection 1 = A1 2 = C2 3 = C1/A2 Type Code A7 PX

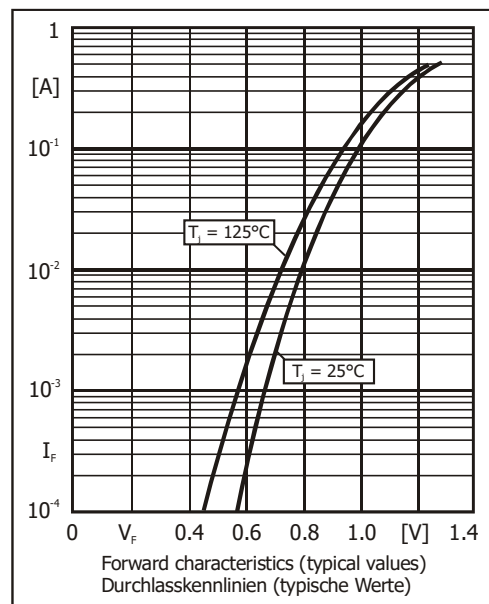
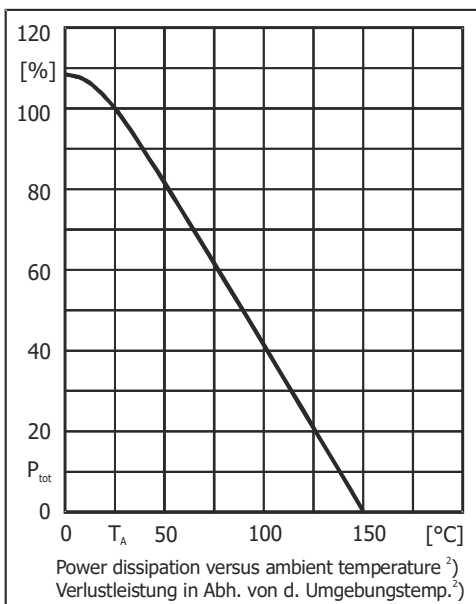
Maximum ratings ²⁾

Grenzwerte ²⁾

Power dissipation (per device) – Verlustleistung (pro Bauteil)	P _{tot}	350 mW ³⁾
Maximum average forward current Dauergrenzstrom	single diode loaded – eine Diode belastet both diodes loaded – beide Dioden belastet	I _{FAV} 215 mA ³⁾ 125 mA ³⁾
Repetitive peak forward current – Periodischer Spitzenstrom	I _{FRM}	300 mA ³⁾
Non repetitive peak forward surge current Stoßstrom-Grenzwert	t _p ≤ 1 s t _p ≤ 1 ms t _p ≤ 1 μs	I _{FSM} 0.5 A 1 A 2 A
Repetitive peak reverse voltage Periodische Sperrspannung	BAS16/-AQ, BAW56/-Q, BAV99/-Q/-AQ, BAV199/-Q BAV70/-Q	V _{RRM} 85 V 100 V
Reverse voltage – Sperrspannung	DC	V _R 75 V
Junction/Storage temperature – Sperrschicht-/Lagerungstemperatur	T _{j/S}	-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 Mounted on 3 mm² copper pads per terminal – Montage auf 3 mm² Kupferbelag (Löt pads) je Anschluss

Characteristics				Kennwerte		
				BAS16/-AQ BAW56 BAV99/-Q/-AQ	BAV70/-Q	BAV199/-Q/-AQ
Forward voltage Durchlass-Spannung ¹⁾	$T_j = 25^\circ\text{C}$	$I_F =$ 1 mA 10 mA 50 mA 150 mA	V_F	< 715 mV < 855 mV < 1.0 V < 1.25 V	< 715 mV < 855 mV < 1.0 V < 1.25 V	< 900 mV < 1.0 V < 1.1 V < 1.25 V
Leakage current Sperrstrom ¹⁾	$T_j = 25^\circ\text{C}$	$V_R =$ 20 V 25 V 75 V	I_R	– < 30 nA < 1.0 μA	< 25 nA – < 2.5 μA	– – < 5 nA
	$T_j = 150^\circ\text{C}$	$V_R =$ 25 V 75 V	I_R	< 30 μA < 50 μA	< 30 μA < 50 μA	– < 80 nA
Junction capacitance Sperrschichtkapazität	$V_R = 0\text{ V}, f = 1\text{ MHz}$		C_T	< 2 pF	< 2 pF	typ 2 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}	< 4 ns	< 4 ns	< 3000 ns
Typical thermal resistance junction to ambient Typischer Wärmewiderstand Sperrschicht-Umgebung	R_{thA}			357 K/W ²⁾		



Disclaimer: See data book page 2 or [website](#)
Haftungsausschluss: Siehe Datenbuch Seite 2 oder [Internet](#)

- 1 Tested with pulses $t_p = 300\ \mu\text{s}$, duty cycle $\leq 2\%$
Gemessen mit Impulsen $t_p = 300\ \mu\text{s}$, Schaltverhältnis $\leq 2\%$
- 2 Mounted on 3 mm² copper pads per terminal
Montage auf 3 mm² Kupferbelag (Löt pads) je Anschluss