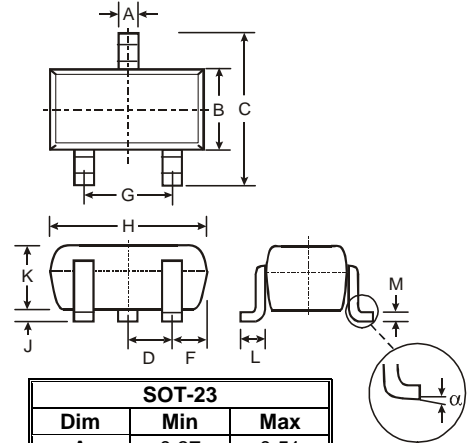


Features

- Silicon Epitaxial Planar Diode
- Fast switching diode in case SOT-23, especially suited for automatic insertion.
- These diodes are also available in other case styles including: the SOD-123 case with the type designations BAV19W-V to BAV21W-V, the Mini-MELF case with the type designation BAV101 to BAV103, the DO-35 case with the type designations BAV19-V to BAV21-V and the SOD-323 case with type designation BAV19WS-V to BAV21WS-V.
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
F	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Mechanical Data

- **Case:** SOT-23 Plastic case
- **Weight:** approx. 8.8 mg
- **Packaging Codes/Options:**
GS18 / 10 k per 13" reel (8 mm tape), 10 k/box
GS08 / 3 k per 7" reel (8 mm tape), 15 k/box

Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Test condition	Part	Symbol	Value	Unit	
Continuous reverse voltage		BAS19-V	V_R	100	V	
		BAS20-V	V_R	150	V	
		BAS21-V	V_R	200	V	
Repetitive peak reverse voltage		BAS19-V	V_{RRM}	120	V	
		BAS20-V	V_{RRM}	200	V	
		BAS21-V	V_{RRM}	250	V	
Non-repetitive peak forward current	$t = 1 \mu\text{s}$		I_{FSM}	2.5	A	
Non-repetitive peak forward surge current	$t = 1 \text{ s}$		I_{FSM}	0.5	A	
Maximum average forward rectified current	(av. over any 20 ms period)		$I_{F(AV)}$	200 ¹⁾	mA	
DC forward current	$T_{amb} = 25^\circ\text{C}$		I_F	200 ²⁾	mA	
Repetitive peak forward current			I_{FRM}	625	mA	
Power dissipation	$T_{amb} = 25^\circ\text{C}$		P_{tot}	250 ²⁾	mW	
Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Forward voltage	$I_F = 100 \text{ mA}$	V_F			1.0	V
	$I_F = 200 \text{ mA}$	V_F			1.25	V
Leakage current	$V_R = V_{Rmax}$	I_R			100	nA
	$V_R = V_{Rmax}, T_j = 150^\circ\text{C}$	I_R			100	μA
Dynamic forward resistance	$I_F = 10 \text{ mA}$	r_f		5		Ω
Diode capacitance	$V_R = 0, f = 1 \text{ MHz}$	C_{tot}			5	pF
Reverse recovery time	$I_F = I_R = 30 \text{ mA}, R_L = 100 \Omega,$ $I_{rr} = 3 \text{ mA}$	t_{rr}			50	ns