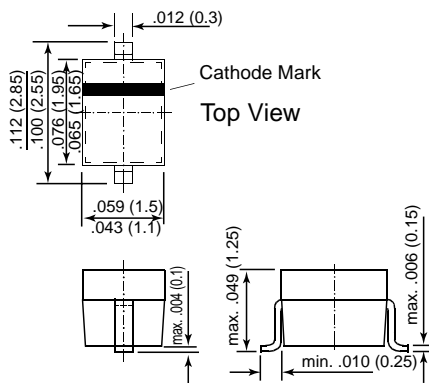


BAV19WS THRU BAV21WS**SMALL SIGNAL DIODES****SOD-323**

Dimensions are in inches and (millimeters)

FEATURES

- ◆ Silicon Epitaxial Planar Diodes
- ◆ For general purpose
- ◆ These diodes are also available in other case styles including: the DO-35 case with the type designations BAV19 to BAV21, the Mini-MELF case with the type designations BAV100 to BAV103, the SOT-23 case with the type designation BAS19 - BAS21 and the SOD-123 case with the type designation BAV19W-BAV21W.

**MECHANICAL DATA**

Case: SOD-323 Plastic Case

Weight: approx. 0.004 g

Marking Code: BAV19WS=A8

BAV20WS=A81

BAV21WS=A82

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

		<i>SYMBOLS</i>	<i>VALUE</i>	<i>UNITS</i>
Continuous Reverse Voltage	BAV19WS	V _R	100	Volts
	BAV20WS	V _R	150	Volts
	BAV21WS	V _R	200	Volts
Repetitive Peak Reverse Voltage	BAV19WS	V _{RRM}	120	Volts
	BAV20WS	V _{RRM}	200	Volts
	BAV21WS	V _{RRM}	250	Volts
Forward DC Current at T _{amb} = 25 °C		I _F	250 ⁽¹⁾	mA
Rectified Current (Average) Half Wave Rectification with Resist. Load at T _{amb} = 25 °C and f ≥ 50 Hz		I _o	200 ⁽¹⁾	mA
Repetitive Peak Forward Current at f ≥ 50 Hz, Θ = 180 °, T _{amb} = 25 °C		I _{FRM}	625 ⁽¹⁾	mA
Surge Forward Current at t < 1 s, T _j = 25 °C		I _{FSM}	1	Amps
Power Dissipation at T _{amb} = 25 °C		P _{tot}	200 ⁽¹⁾	mW
Junction Temperature		T _j	150 ⁽¹⁾	°C
Storage Temperature Range		T _s	-65 to + 150 ⁽¹⁾	°C

NOTES:

(1) Valid provided that electrodes are kept at ambient temperature

BAV19WS THRU BAV21WS

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

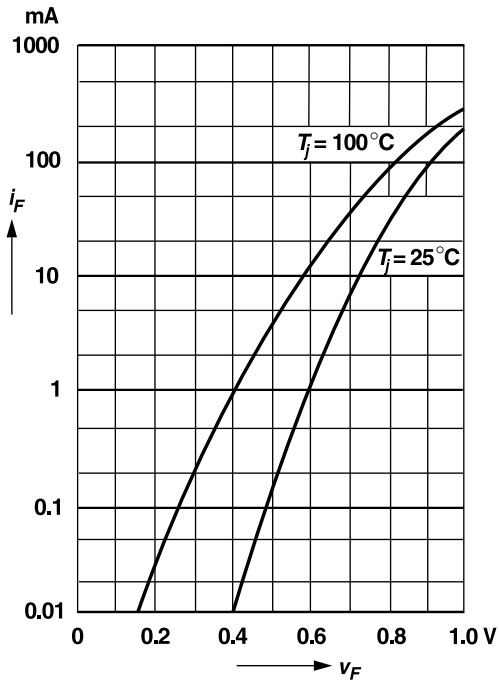
	<i>SYMBOL</i>	<i>MIN.</i>	<i>TYP.</i>	<i>MAX.</i>	<i>UNIT</i>
Forward voltage at $I_F = 100 \text{ mA}$ at $I_F = 200 \text{ mA}$	V_F V_F	– –	– –	1.00 1.25	Volts Volts
Leakage Current at $V_R = 100 \text{ V}$ at $V_R = 100 \text{ V}, T_j = 100 \text{ }^\circ\text{C}$ at $V_R = 150 \text{ V}$ at $V_R = 150 \text{ V}, T_j = 100 \text{ }^\circ\text{C}$ at $V_R = 200 \text{ V}$ at $V_R = 200 \text{ V}, T_j = 100 \text{ }^\circ\text{C}$	BAV19WS BAV19WS BAV20WS BAV20WS BAV21WS BAV21WS	– – – – – –	– – – – – –	100 15.0 100 15.0 100 15.0	nA μA nA μA nA μA
Dynamic Forward Resistance at $I_F = 10 \text{ mA}$	r_f	–	5	–	Ω
Capacitance at $V_R = 0, f = 1 \text{ MHz}$	C_{tot}	–	1.5	–	pF
Reverse Recovery Time from $I_F = 30 \text{ mA}$ through $I_R = 30 \text{ mA}$ to $I_R = 3 \text{ mA}; R_L = 100\Omega$	t_{rr}	–	–	50	ns
Thermal Resistance Junction to Ambient Air	R_{thJA}	–	–	650 ¹⁾	K/W

NOTES:

(1) Valid provided that electrodes are kept at ambient temperature

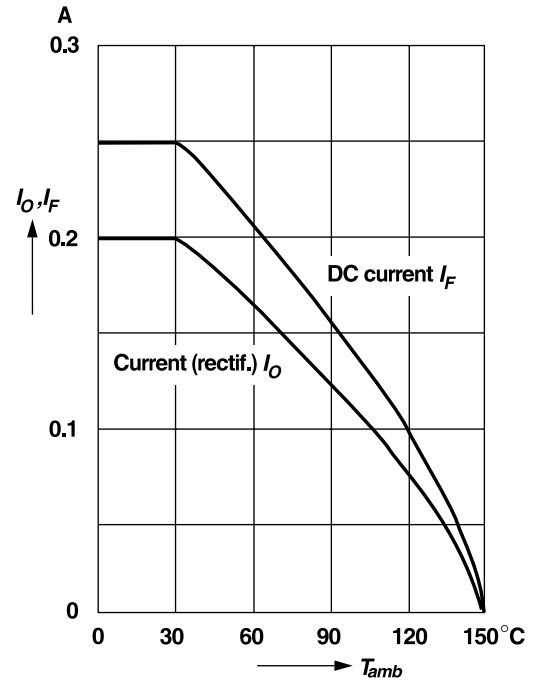
RATINGS AND CHARACTERISTIC CURVES BAV19WS THRU BAV21WS

Forward characteristics



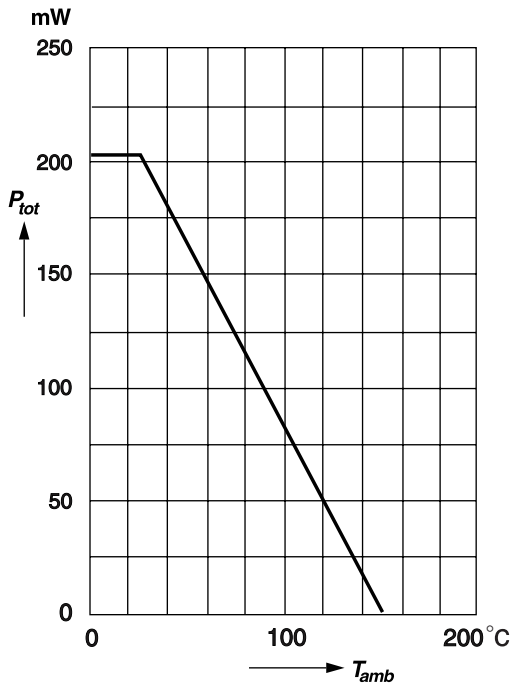
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

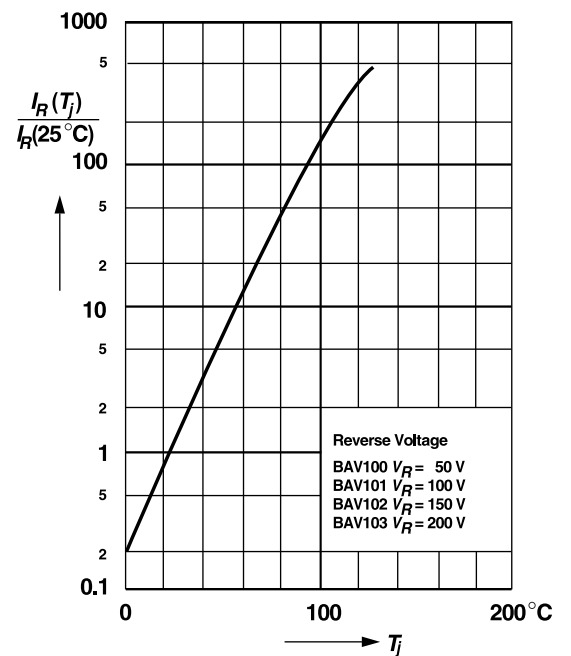


Admissible power dissipation versus ambient temperature

For conditions, see footnote in table "Absolute Maximum Ratings"

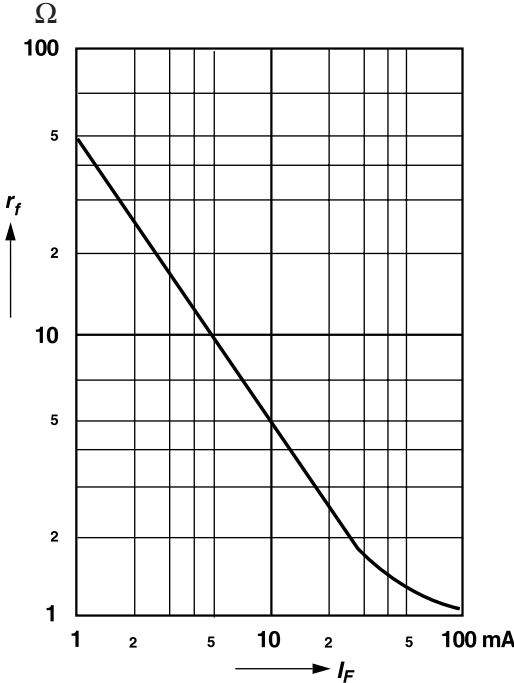


Leakage current versus junction temperature



RATINGS AND CHARACTERISTIC CURVES BAV19WS THRU BAV21WS

Dynamic forward resistance versus forward current



Capacitance versus reverse voltage

