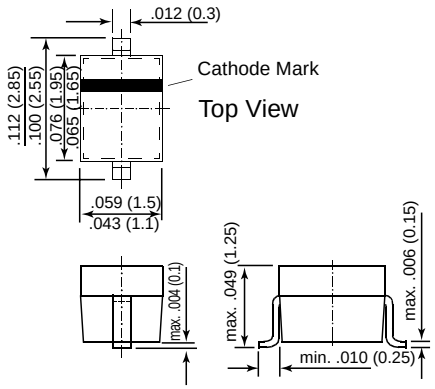
BAV19WS THRU BAV21WS

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.

		SYMBOLS	*VALUE*	*UNITS*
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, Tj = 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

GENERAL SEMICONDUCTOR®

BAV19WS THRU BAV21WS

ELECTRICAL CHARACTERISTICS

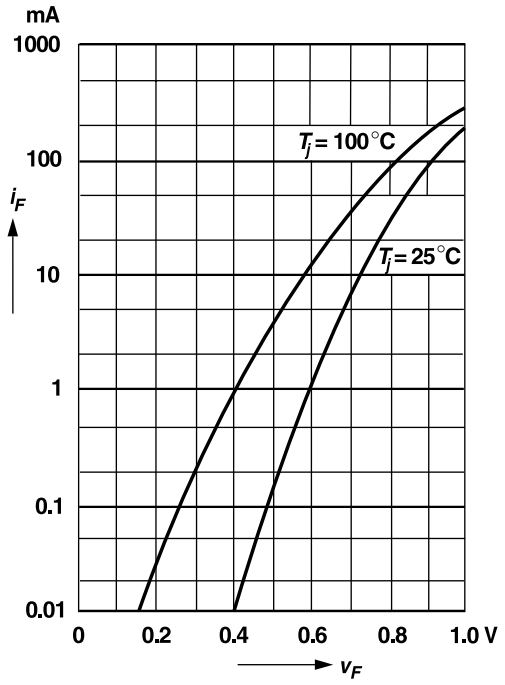
Ratings at 25°C ambient temperature unless otherwise specified.

		SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage at I_F = 100 mA		V_F	–	–	1.00	Volts
at I_F = 200mA		V_F	–	–	1.25	Volts
Leakage Current						
at V_R = 100 V	**BAV19WS**	I_R	–	–	100	nA
at V_R = 100 V, T_j = 100 °C	**BAV19WS**	I_R	–	–	15.0	µA
at V_R = 150 V	**BAV20WS**	I_R	–	–	100	nA
at V_R = 150 V, T_j = 100 °C	**BAV20WS**	I_R	–	–	15.0	µA
at V_R = 200 V	**BAV21WS**	I_R	–	–	100	nA
at V_R = 200 V, T_j = 100 °C	**BAV21WS**	I_R	–	–	15.0	µA
Dynamic Forward Resistance at I_F = 10 mA		r_f	–	5	–	Ω
Capacitance at V_R = 0, f = 1 MHz		C_{tot}	–	1.5	–	pF
Reverse Recovery Time from I_F = 30 mA through I_R = 30 mA to I_R = 3 mA; R_L = 100Ω		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

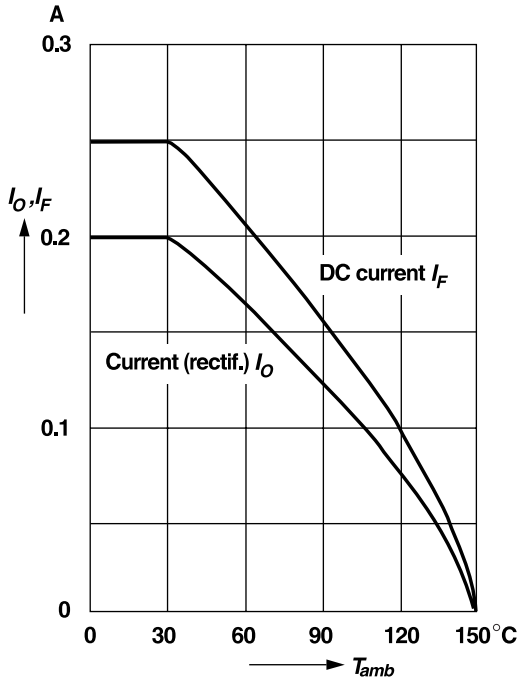
RATINGS AND CHARACTERISTIC CURVES BAV19WS THRU BAV21WS

Forward characteristics



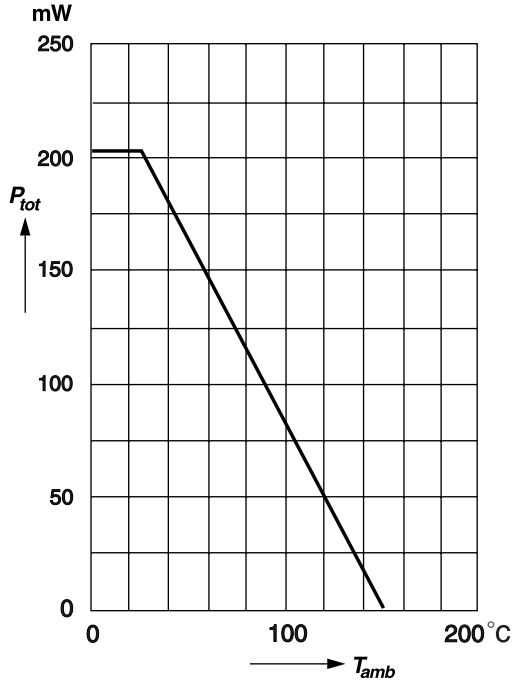
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

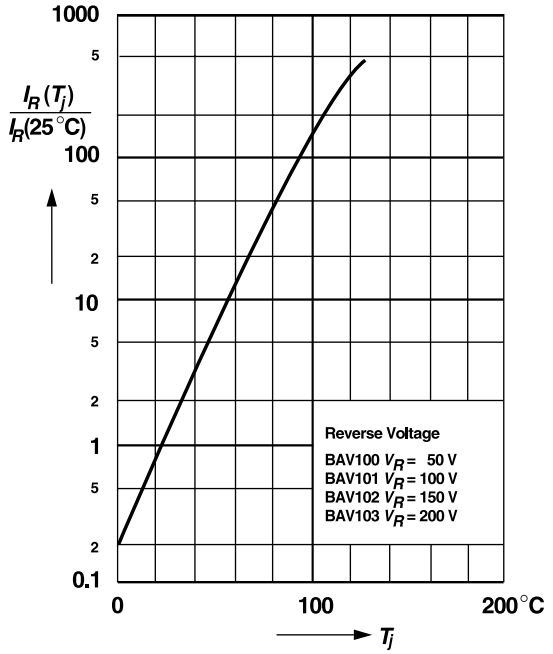


Admissible power dissipation versus ambient temperature

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

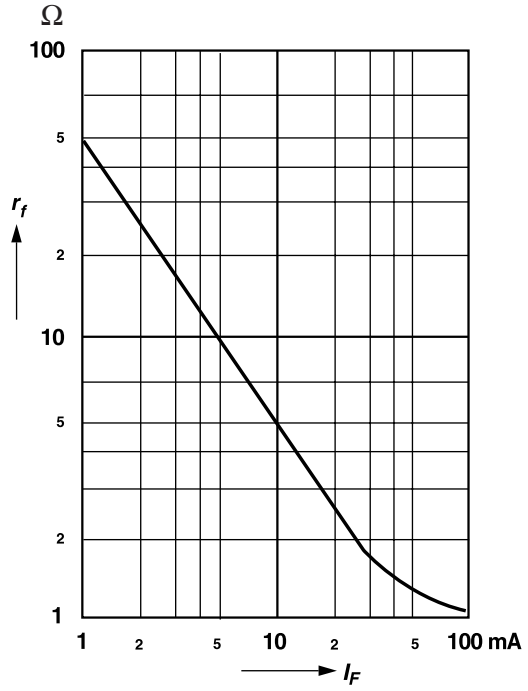


Leakage current versus junction temperature



RATINGS AND CHARACTERISTIC CURVES BAV19WS THRU BAV21WS

Dynamic forward resistance versus forward current



Capacitance versus reverse voltage