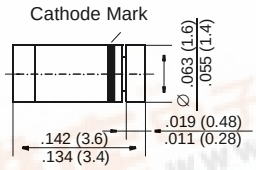
BAV100 THRU BAV103

Small Signal Diodes

MiniMELF



Dimensions 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 SOD-123 case with the type designations BAV19W to BAV21W, and the SOT-23 case with the type designation BAS19 - BAS21.

MECHANICAL DATA

Case: MiniMELF Glass Case (SOD-80)
Weight: approx. 0.05 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

		Symbol	Value	Unit
Reverse Voltage	**BAV100**	V_R	60	V
	BAV101	V_R	120	V
	BAV102	V_R	200	V
	BAV103	V_R	250	V
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_0	200[1)]	mA
Repetitive Peak Forward Current at f ≥ 50 Hz, Θ = 180 °C, T_{amb} = 25 °C		I_{FRM}	625[1)]	mA
Surge Forward Current at t < 1 s, T_j = 25 °C		I_{FSM}	1	A
Power Dissipation at T_{amb} = 25 °C		P_{tot}	400[1)]	mW
Junction Temperature		T_j	175	°C
Storage Temperature Range		T_S	–65 to +175	°C

[1)] Valid provided that electrodes are kept at ambient temperature.

GENERAL SEMICONDUCTOR®

BAV100 THRU BAV103

ELECTRICAL CHARACTERISTICS

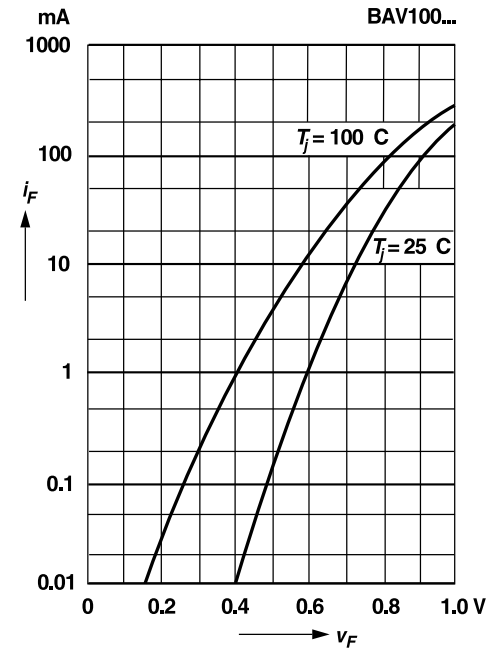
Ratings at 25 °C ambient temperature unless otherwise specified

		Symbol	Min.	Typ.	Max.	Unit
Forward voltage at I_F = 100 mA		V_F	–	–	1	V
Leakage Current						
at V_R = 50 V	**BAV100**	I_R	–	–	100	nA
at V_R = 50 V, T_j = 100 °C	**BAV100**	I_R	–	–	15	µA
at V_R = 100 V	**BAV101**	I_R	–	–	100	nA
at V_R = 100 V, T_j = 100 °C	**BAV101**	I_R	–	–	15	µA
at V_R = 150 V	**BAV102**	I_R	–	–	100	nA
at V_R = 150 V, T_j = 100 °C	**BAV102**	I_R	–	–	15	µA
at V_R = 200 V	**BAV103**	I_R	–	–	100	nA
at V_R = 200 V, T_j = 100 °C	**BAV103**	I_R	–	–	15	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 = 100 Ω		t_{rr}	–	–	50	ns
Thermal Resistance Junction to Ambient Air		R_{thJA}	–	–	0.375[1)]	K/mW

[1)] Valid provided that electrodes are kept at ambient temperature.

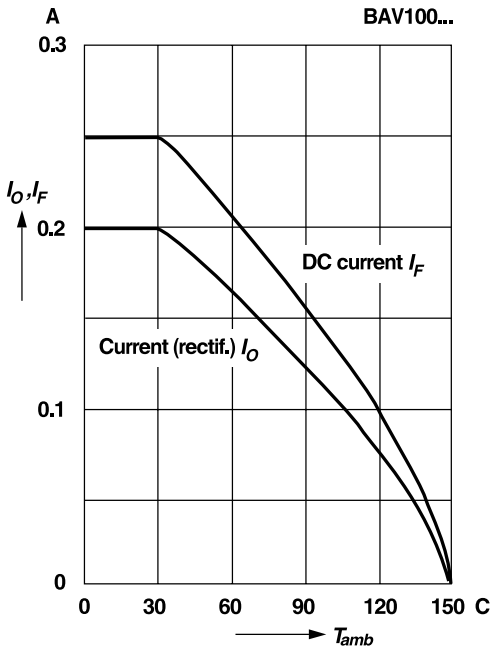
RATINGS AND CHARACTERISTIC CURVES BAV100 THRU BAV103

Forward characteristics



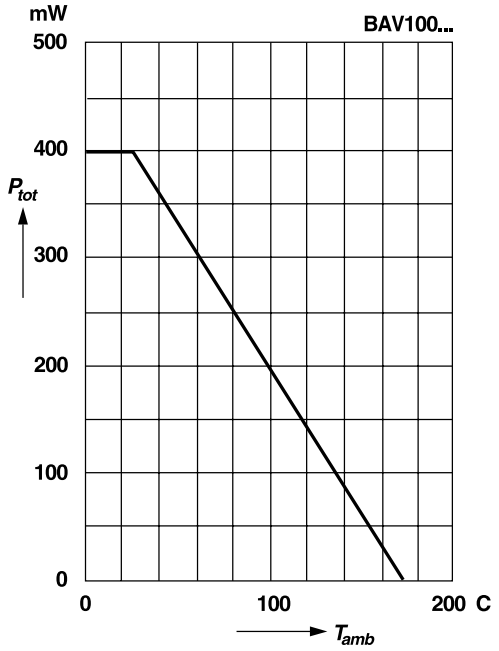
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

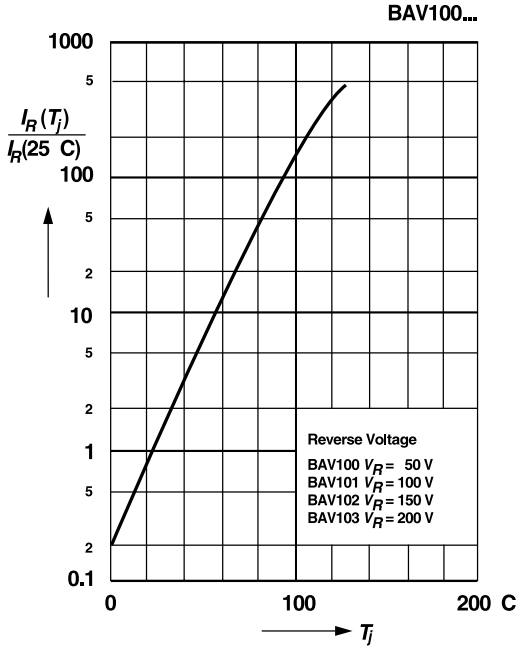


Admissible power dissipation versus ambient temperature

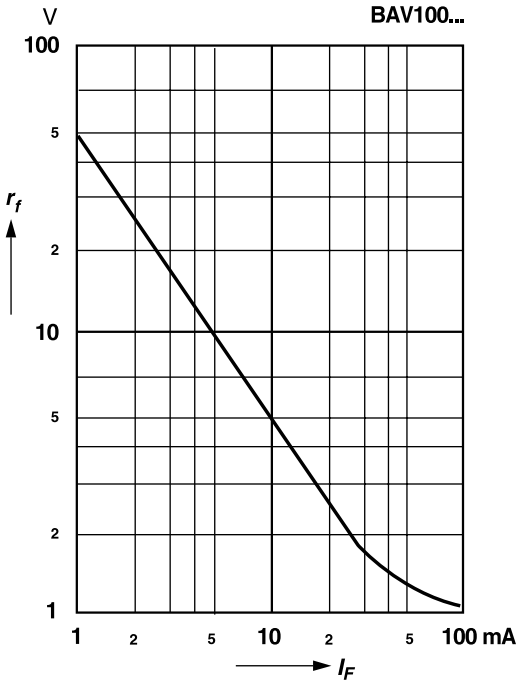
Valid provided that electrodes are kept at ambient temperature



Leakage current versus junction temperature



Dynamic forward resistance versus forward current



Capacitance versus reverse voltage