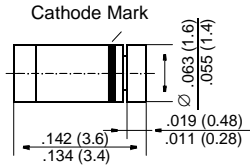


BAV100 THRU BAV103

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 BAV101 BAV102 BAV103	V_R V_R V_R V_R	60 120 200 250	V V V V
Forward DC Current at $T_{amb} = 25\text{ °C}$	I_F	250 ¹⁾	mA
Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_{amb} = 25\text{ °C}$ and $f \geq 50\text{ Hz}$	I_o	200 ¹⁾	mA
Repetitive Peak Forward Current at $f \geq 50\text{ Hz}$, $\Theta = 180\text{ °C}$, $T_{amb} = 25\text{ °C}$	I_{FRM}	625 ¹⁾	mA
Surge Forward Current at $t < 1\text{ s}$, $T_j = 25\text{ °C}$	I_{FSM}	1	A
Power Dissipation at $T_{amb} = 25\text{ °C}$	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.

BAV100 THRU BAV103

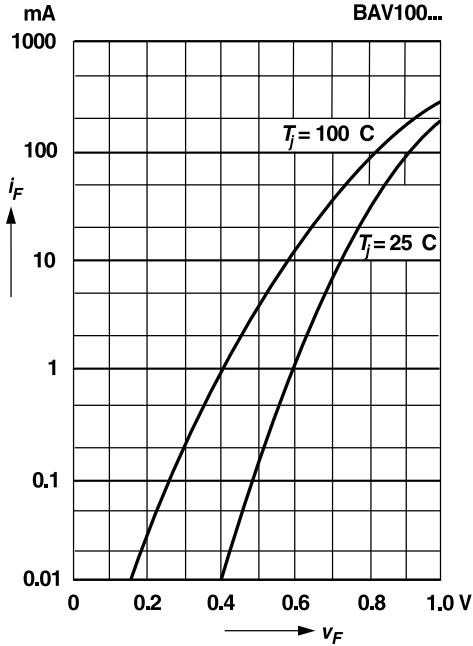
ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Forward voltage at $I_F = 100 \text{ mA}$	V_F	–	–	1	V
Leakage Current at $V_R = 50 \text{ V}$	BAV100 I_R	–	–	100	nA
at $V_R = 50 \text{ V}, T_j = 100 \text{ °C}$	BAV100 I_R	–	–	15	μA
at $V_R = 100 \text{ V}$	BAV101 I_R	–	–	100	nA
at $V_R = 100 \text{ V}, T_j = 100 \text{ °C}$	BAV101 I_R	–	–	15	μA
at $V_R = 150 \text{ V}$	BAV102 I_R	–	–	100	nA
at $V_R = 150 \text{ V}, T_j = 100 \text{ °C}$	BAV102 I_R	–	–	15	μA
at $V_R = 200 \text{ V}$	BAV103 I_R	–	–	100	nA
at $V_R = 200 \text{ V}, T_j = 100 \text{ °C}$	BAV103 I_R	–	–	15	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}	–	–	0.375 ¹⁾	K/mW
1) Valid provided that electrodes are kept at ambient temperature.					

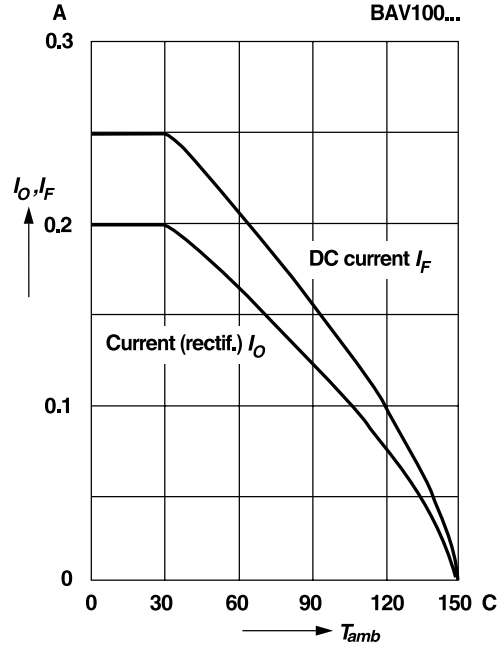
RATINGS AND CHARACTERISTIC CURVES BAV100 THRU BAV103

Forward characteristics



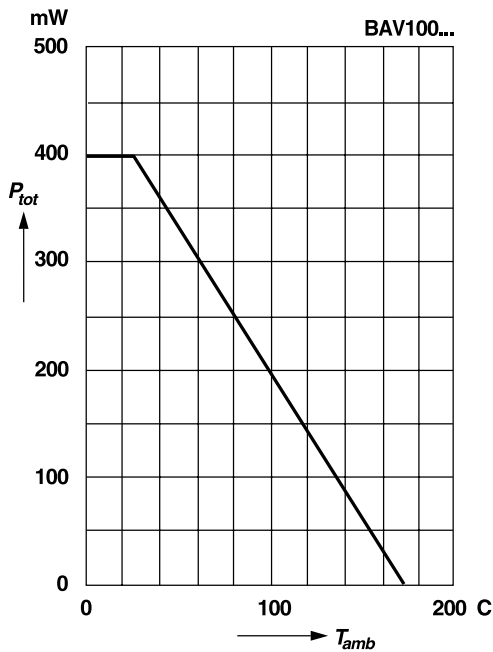
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

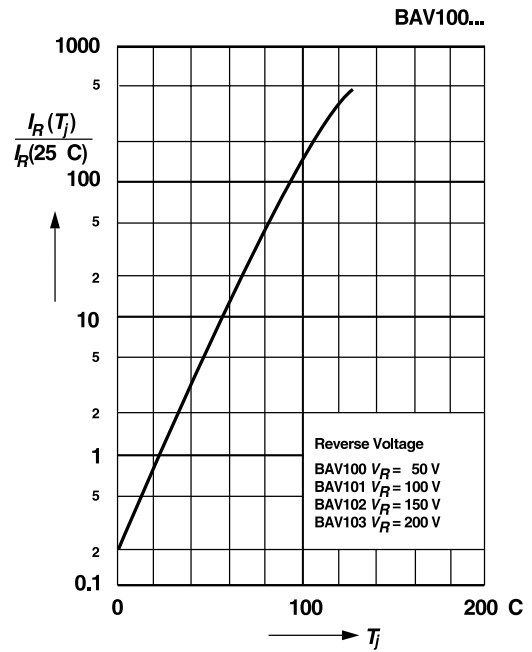


Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

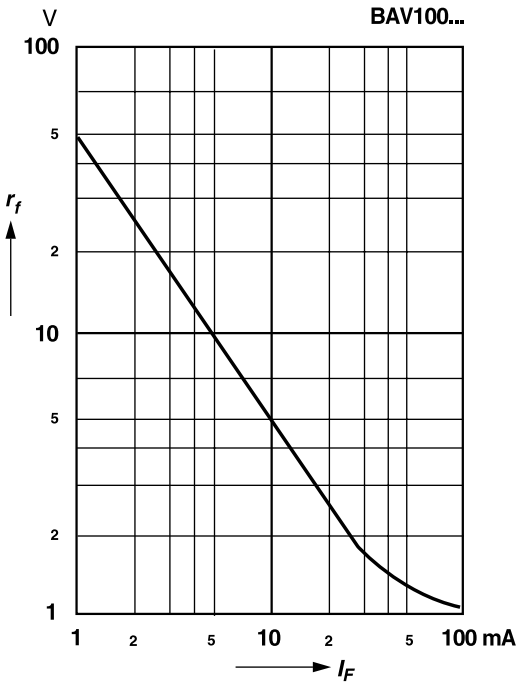


Leakage current versus junction temperature



RATINGS AND CHARACTERISTIC CURVES BAV100 THRU BAV103

**Dynamic forward resistance
versus forward current**



**Capacitance
versus reverse voltage**

