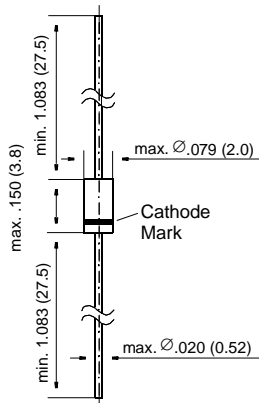


BAV19 THRU BAV21

Small Signal Diodes

DO-35



Dimensions in inches and (millimeters)

FEATURES

- ◆ Silicon Epitaxial Planar Diodes
- ◆ For general purpose
- ◆ These diodes are also available in other case styles including: the SOD-123 case with the type designation BAV19W - BAV21W, the MiniMELF case with the type designation BAV101 - BAV103, and the SOT-23 case with the type designation BAS19 - BAS21.



MECHANICAL DATA

Case: DO-35 Glass Case

Weight: approx. 0.13 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Value	Unit
Reverse Voltage	BAV19 BAV20 BAV21	V_R V_R V_R	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_0	200 ¹⁾ mA
Repetitive Peak Forward Current at $f \geq 50\text{ Hz}$, $\theta = 180\text{ °}$, $T_{amb} = 25\text{ °C}$		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}	500 ¹⁾ mW
Junction Temperature		T_j	175 ¹⁾ °C
Storage Temperature Range		T_S	-65 to +175 ¹⁾ °C

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case

BAV19 THRU BAV21

ELECTRICAL CHARACTERISTICS

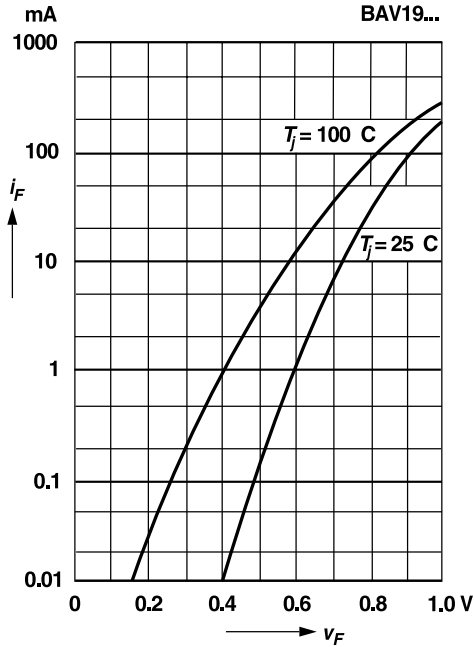
Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Forward voltage at $I_F = 100 \text{ mA}$	V_F	–	–	1	V
Leakage Current at $V_R = 100 \text{ V}$	BAV19 I_R	–	–	100	nA
at $V_R = 100 \text{ V}, T_j = 100 \text{ °C}$	BAV19 I_R	–	–	15	μA
at $V_R = 150 \text{ V}$	BAV20 I_R	–	–	100	nA
at $V_R = 150 \text{ V}, T_j = 100 \text{ °C}$	BAV20 I_R	–	–	15	μA
at $V_R = 200 \text{ V}$	BAV21 I_R	–	–	100	nA
at $V_R = 200 \text{ V}, T_j = 100 \text{ °C}$	BAV21 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}	–	–	375 ^{1) 2)}	K/W

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case

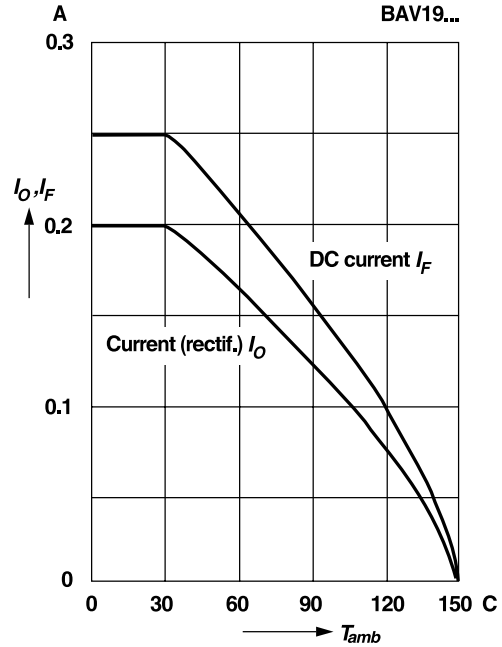
RATINGS AND CHARACTERISTIC CURVES BAV19 THRU BAV21

Forward characteristics



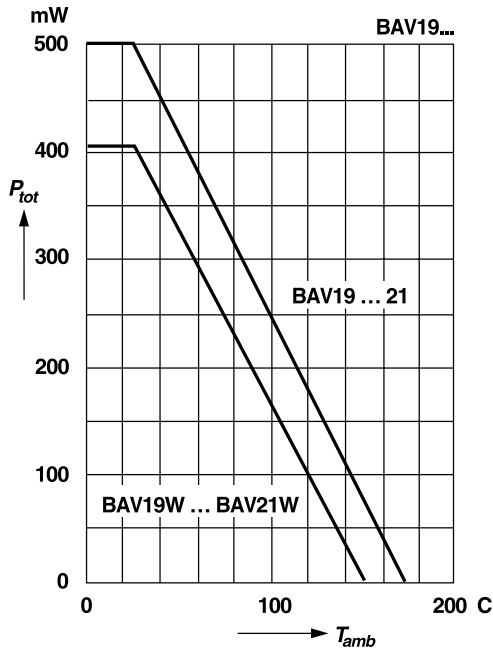
Admissible forward current versus ambient temperature

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

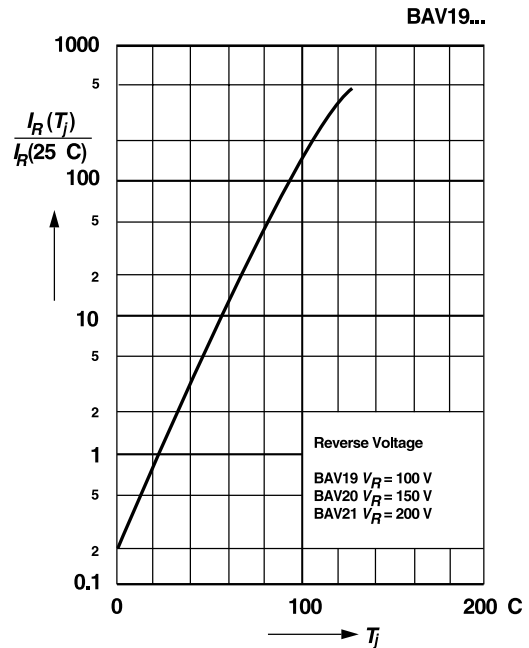


Admissible power dissipation versus ambient temperature

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

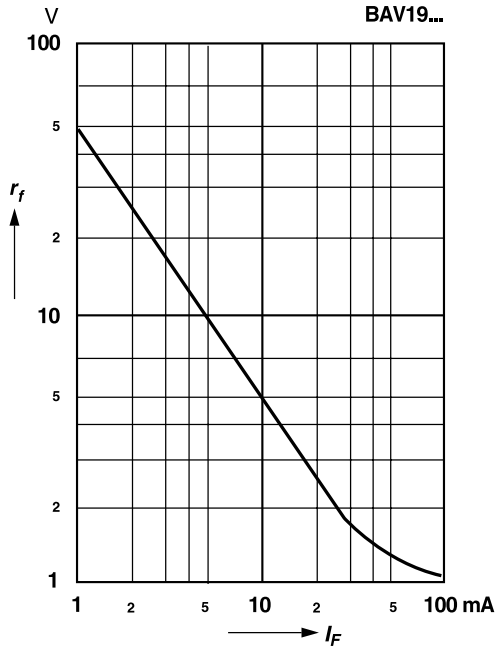


Leakage current versus junction temperature



RATINGS AND CHARACTERISTIC CURVES BAV19 THRU BAV21

Dynamic forward resistance
versus forward current



Capacitance
versus reverse voltage

