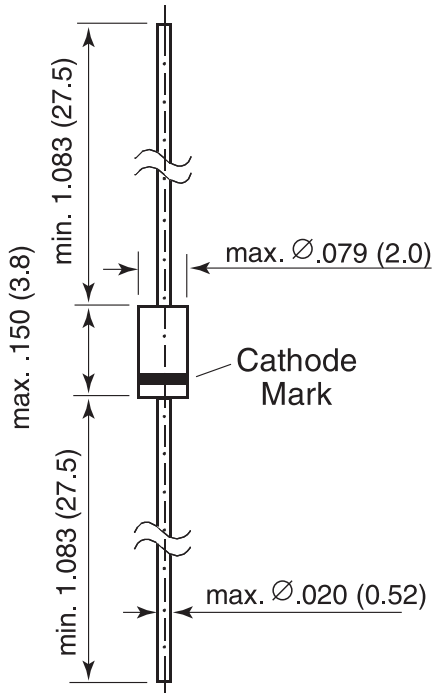


Small-Signal Diodes

DO-35 Glass



Dimensions in inches and (millimeters)

Features

- Silicon Epitaxial Planar Diodes
- For general purpose
- This diode is also available in other case styles including: the SOD-123 case with the type designation BAV19W to BAV21W, the MiniMELF case with the type designation BAV101 to BAV103, the SOT-23 case with the type designation BAS19 to BAS21, and the SOD-323 case with type designation BAV19WS to BAV21WS.

Mechanical Data

Case: DO-35 Glass Case

Weight: approx. 0.13g

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

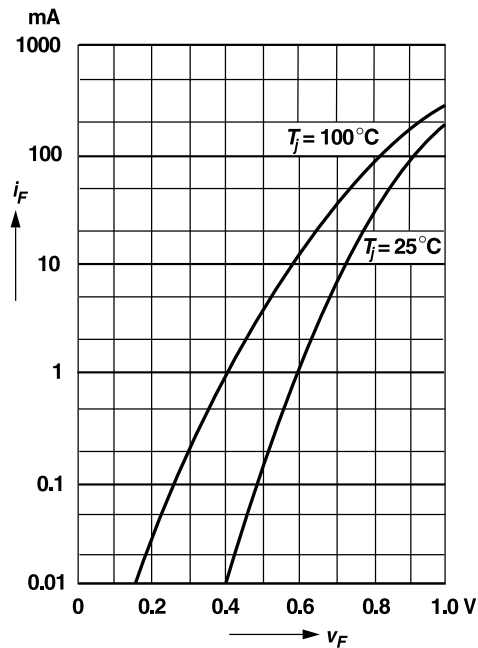
Parameter	Symbol	Value	Unit
Continuous Reverse Voltage BAV19 BAV20 BAV21	V _R	100 150 200	V
Repetitive Peak Reverse Voltage BAV19 BAV20 BAV21	V _{RRM}	120 200 250	V
Forward DC Current at T _{amb} = 25°C ⁽¹⁾	I _F	250	mA
Rectified Current (Average) Half Wave Rectification with Resist. Load at T _{amb} = 25°C ⁽¹⁾	I _{F(AV)}	200	mA
Repetitive Peak Forward Current at f ≥ 50Hz, Θ = 180°, T _{amb} = 25°C ⁽¹⁾	I _{FRM}	625	mA
Surge Forward Current at t < 1s, T _j = 25°C	I _{FSM}	1	A
Power Dissipation at T _{amb} = 25°C ⁽¹⁾	P _{tot}	500	mW
Thermal Resistance Junction to Ambient Air ⁽¹⁾	R _{θJA}	430	°C/W
Junction Temperature ⁽¹⁾	T _j	175	°C
Storage Temperature Range ⁽¹⁾	T _s	-65 to +175	°C

Electrical Characteristics (T_J = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V _F	I _F = 100mA I _F = 200mA	—	—	1.00 1.25	V
Leakage Current	I _R	V _R = 100V V _R = 150V V _R = 200V T _j = 100°C T _j = 100°C T _j = 100°C	—	—	100 15 100 15 100 15	nA μA nA μA nA μA
Dynamic Forward Resistance	r _f	I _F = 10mA	—	5	—	Ω
Capacitance	C _{tot}	V _R = 0, f = 1MHz	—	1.5	—	pF
Reverse Recovery Time	t _{rr}	I _F = 30mA, I _R = 30mA I _{rr} = 3mA, R _L = 100Ω	—	—	50	ns

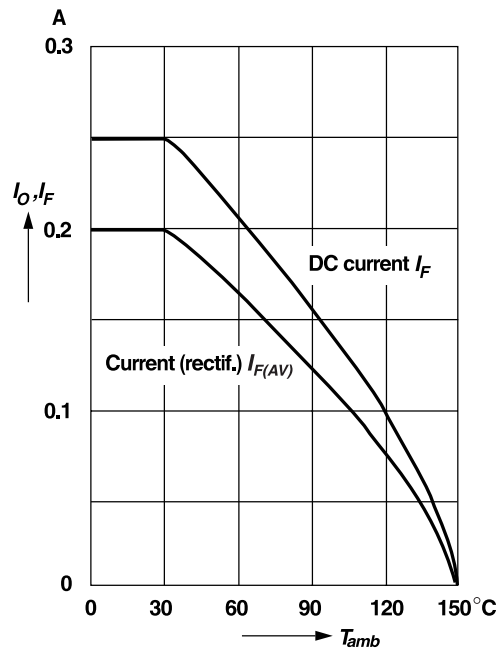
Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Forward characteristics



Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

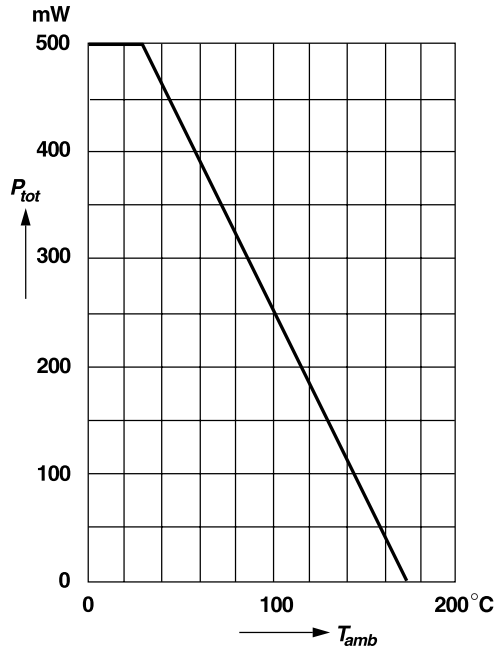


BAV19 thru BAV21

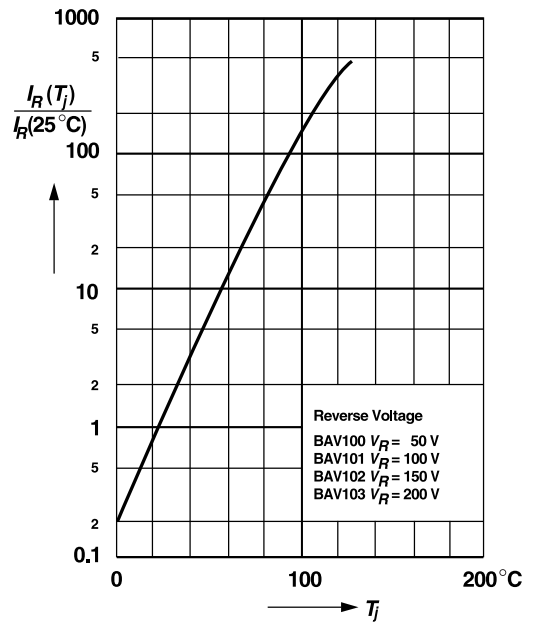
Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Admissible power dissipation versus ambient temperature

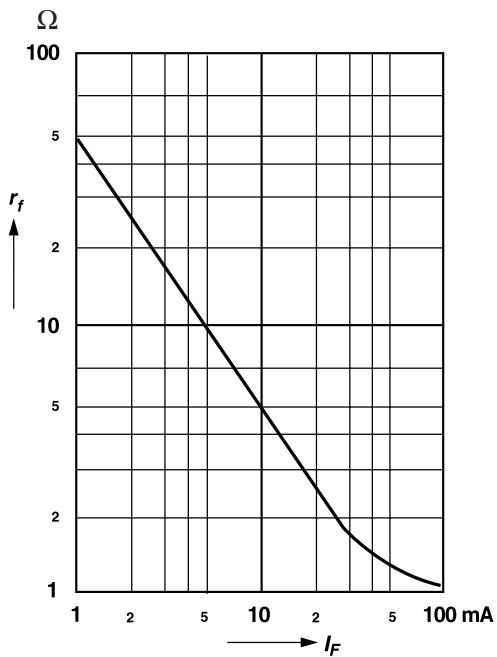
Valid provided that electrodes are kept at ambient temperature



Leakage current versus junction temperature



Dynamic forward resistance versus forward current



Capacitance versus reverse voltage

