BAV19 thru BAV21

Small-Signal Diode
Fast Switching Diodes

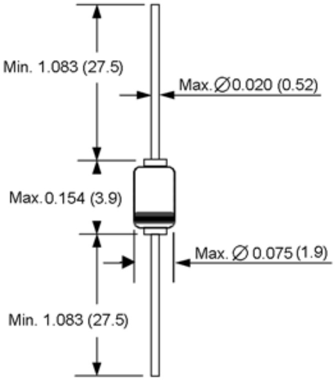
Features

- Silicon Epitaxial Planar Diode
- For general purpose
- This diode is also available in other case styles including: the MiniMELF case with the type designation BAV101 to BAV103.

DO-204AH (DO-35 Glass)

Mechanical Data

- Case: DO-35 Glass Case
- Weight: approx. 0.13g



Dimensions in inches and (millimeters)

Maximum Ratings and Thermal Characteristics

(T_A=25°C unless otherwise noted.)

Parameter		Symbol	Limit	Unit
Continuous reverse voltage	BAV19 BAV20 BAV21	V_R	100 150 200	Volts
Repetitive peak reverse voltage	BAV19 BAV20 BAV21	V_{RRM}	120 200 250	Volts
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 and T_j=25°C		I_{FSM}	1.0	Amp
Power dissipation at T_{amb}=25°C (1)		P_{tot}	500	mW
Thermal resistance junction to ambient air (1)		$R_{\theta JA}$	430	°C/W
Junction temperature (1)		T_j	175	°C
Storage temperature range (1)		T_S	-65 to +175	°C

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

Electrical Characteristics

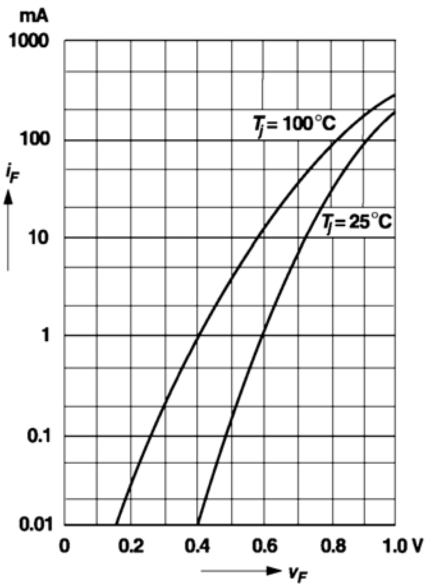
(T_J=25°C unless otherwise noted.)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_F	I_F=100mA I_F=200mA	-	-	1.00 1.25	Volts
Leakage current BAV19	I_R	V_R=100V	-	-	100	nA
BAV19		V_R=100V, T_j=100°C	-	-	15	uA
BAV20		V_R=150V	-	-	100	nA
BAV20		V_R=150V, T_j=100°C	-	-	15	uA
BAV21		V_R=200V	-	-	100	nA
BAV21		V_R=200V, T_j=100°C	-	-	15	uA
Dynamic forward resistance	γf	I_F=10mA	-	5	-	Ω
Capacitance	C_{tot}	V_R=0V, 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

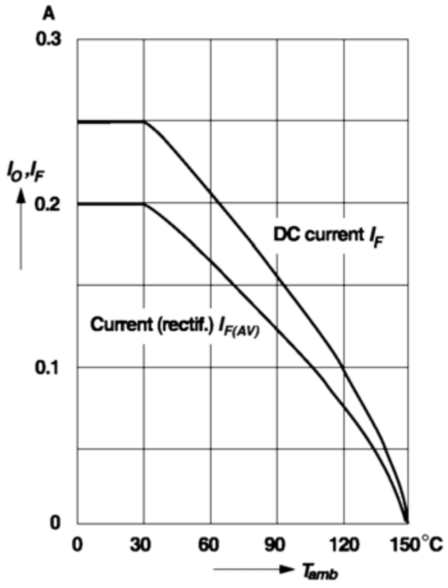
(T_A = 25°C unless otherwise noted.)

Forward characteristics



Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

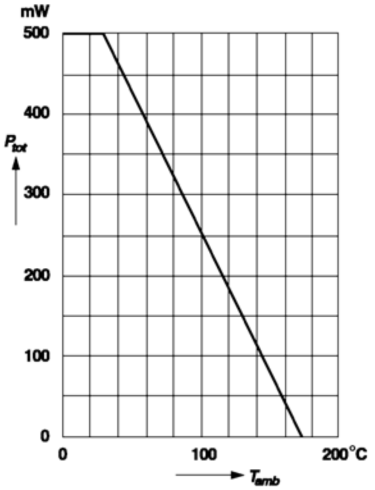


RATINGS AND CHARACTERISTIC CURVES

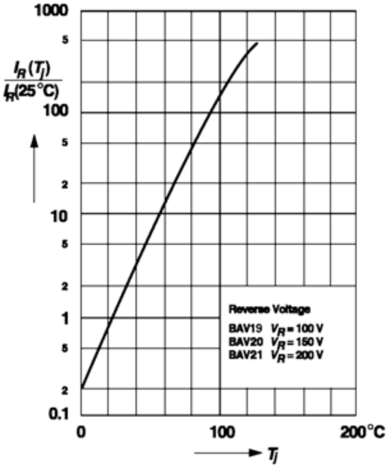
(T_A = 25°C unless otherwise noted.)

Admissible power dissipation versus ambient temperature

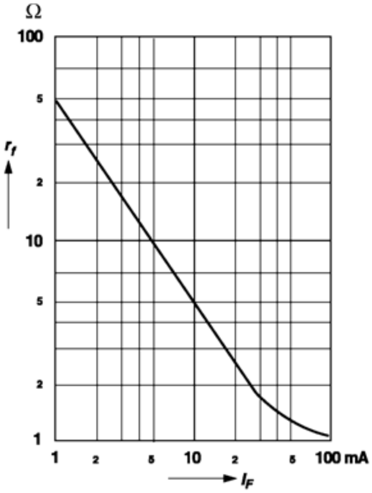
Valid provided that electrodes are kept at ambient temperature



Leakage current versus junction temperature



Dynamic forward resistance versus forward current



Capacitance versus reverse voltage