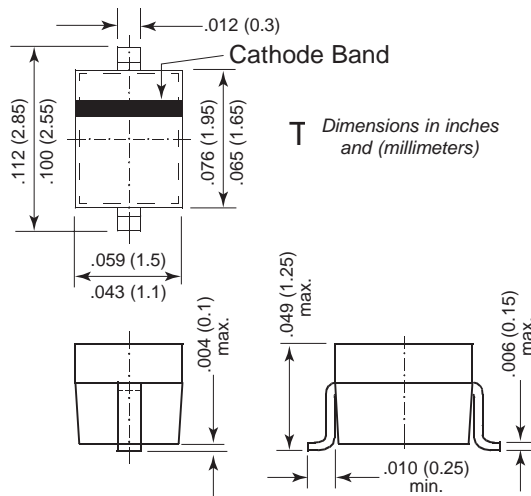


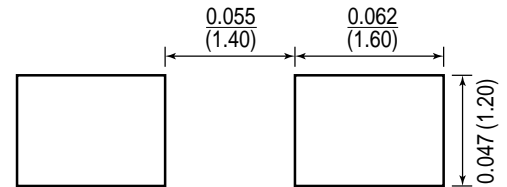


Small-Signal Diodes

SOD-323



Mounting Pad Layout



Mechanical Data

Case: SOD-323 Plastic Case

Weight: approx. 0.004g

Marking BAV19WS = A8

Code: BAV20WS = A9

BAV21WS = AA

Packaging Codes/Options:

D5/10K per 13" reel (8mm tape), 30K/box

D6/3K per 7" reel (8mm tape), 30K/box

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 designation BAV19 - BAV21, the MiniMELF case with the type designation BAV100 - BAV103, the SOT-23 case with the type designation BAS19 - BAS21 and the SOD-123 case with the type designation BAV19W - BAV21W

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

Parameter	Symbol	Value	Unit
Continuous Reverse Voltage	BAV19WS BAV20WS BAV21WS	V _R 100 150 200	V
Repetitive Peak Reverse Voltage	BAV19WS BAV20WS BAV21WS	V _R RM 120 200 250	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 ≥ 50Hz	I _{F(AV)}	200 ⁽¹⁾	mA
Repetitive Peak Forward Current at f ≥ 50Hz, θ = 180°, T _{amb} = 25°C	I _F RM	625 ⁽¹⁾	mA
Surge Forward Current at t < 1s, T _j = 25°C	I _F SM	1	A
Power Dissipation at T _{amb} = 25°C	P _{tot}	200 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	R _{θJA}	650 ⁽¹⁾	°C/W
Junction Temperature	T _j	150 ⁽¹⁾	°C
Storage Temperature Range	T _S	-65 to +175 ⁽¹⁾	°C

Note:

(1) Valid provided that leads are kept at ambient temperature.

BAV19WS thru BAV21WS

Vishay Semiconductors
formerly General Semiconductor

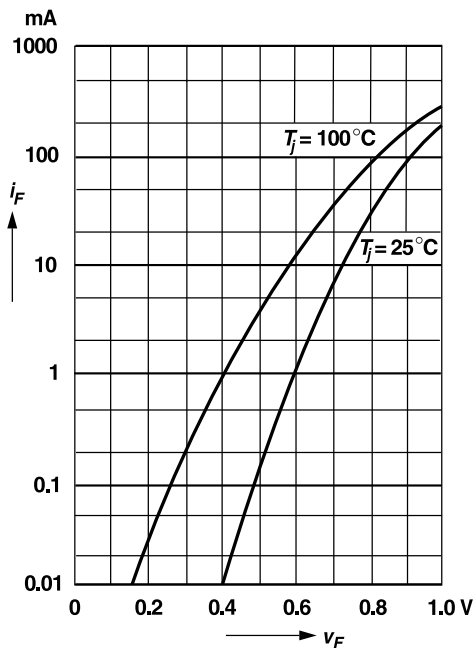


Electrical Characteristics (T_J = 25°C unless otherwise noted)

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

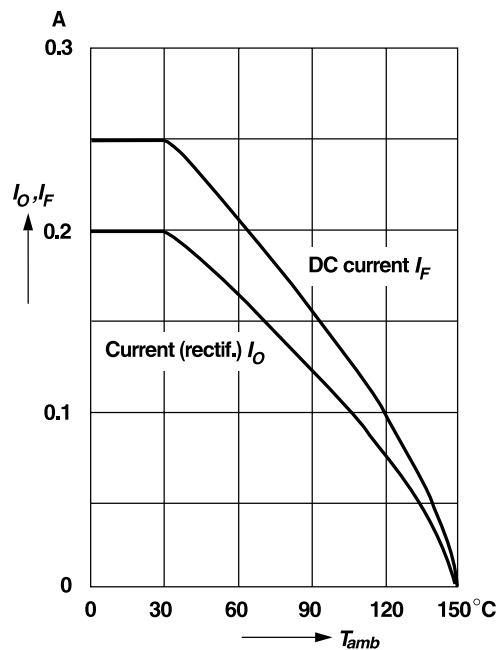
Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Forward characteristics



Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

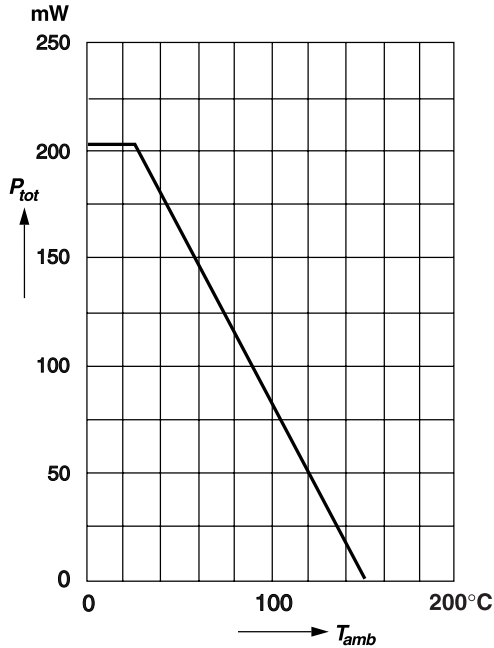




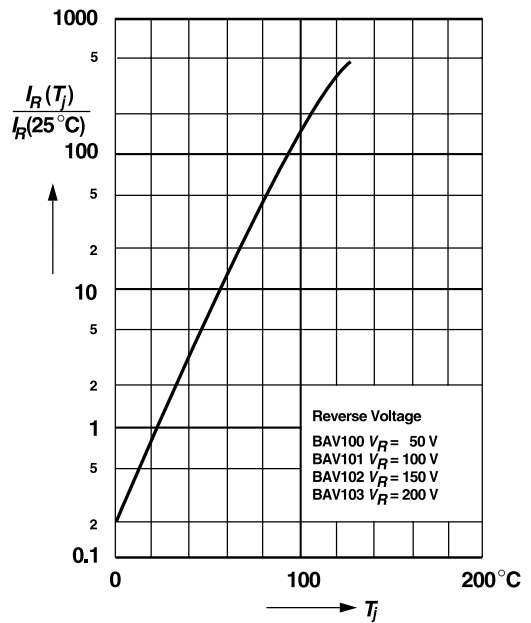
Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Admissible power dissipation versus ambient temperature

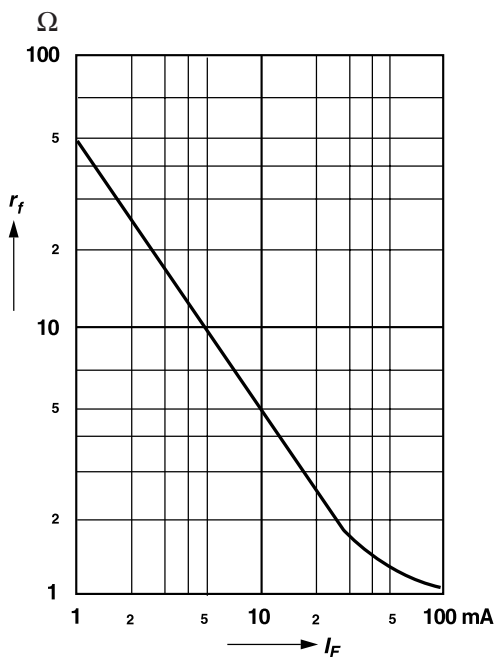
For conditions, see footnote in table "Absolute Maximum Ratings"



Leakage current versus junction temperature



Dynamic forward resistance versus forward current



Capacitance versus reverse voltage

