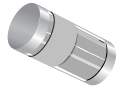
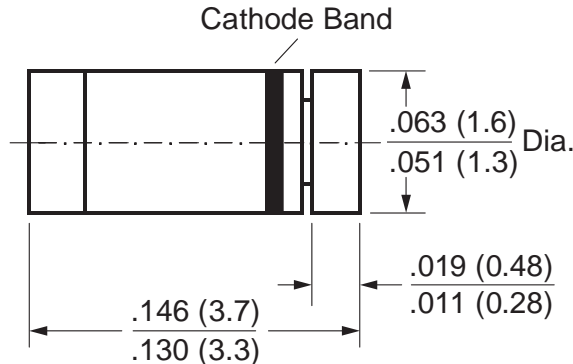




Small-Signal Diodes

**MiniMELF (SOD-80C)***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, the SOT-23 case with the type designations BAS19 to BAS21, and the SOD-323 case with type designations BAV19WS to BAV21WS.

Mechanical Data

Case: MiniMELF Glass Case (SOD-80C)**Weight:** approx. 0.05g**Cathode Band Color:** Yellow**Packaging Codes/Options:**

F4/10K per 13" reel (8mm tape), 50K/box

Maximum Ratings and Thermal Characteristics

(T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Continuous Reverse Voltage	V _R	50	V
BAV100		100	
BAV101		150	
BAV102		200	
Repetitive Peak Reverse Voltage	V _R RM	60	V
BAV100		120	
BAV101		200	
BAV102		250	
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 and f ≥ 50Hz ⁽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}	400	mW
Thermal Resistance Junction to Ambient Air ⁽¹⁾	R _{θJA}	375	°C/W
Junction Temperature	T _j	175	°C
Storage Temperature Range ⁽¹⁾	T _S	-65 to +175	°C

Note:

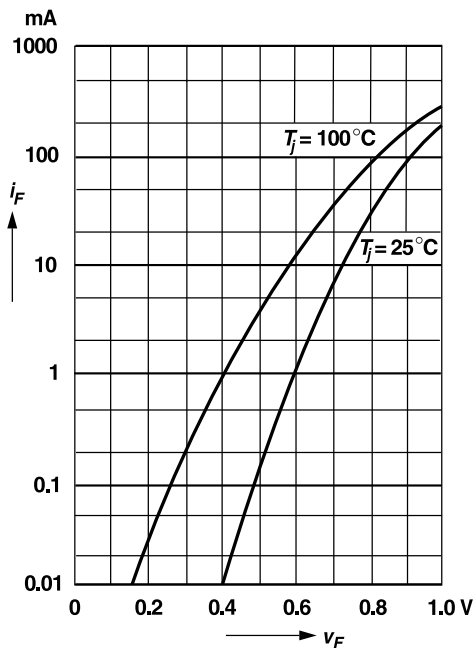
(1) Valid provided that electrodes are kept at ambient temperature

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	BAV100 V _R = 50V	—	—	100	nA
		BAV100 V _R = 100V, T _j = 100°C	—	—	15	μA
		BAV101 V _R = 100V	—	—	100	nA
		BAV101 V _R = 100V, T _j = 100°C	—	—	15	μA
		BAV102 V _R = 150V	—	—	100	nA
		BAV102 V _R = 150V, T _j = 100°C	—	—	15	μA
		BAV103 V _R = 200V	—	—	100	nA
BAV103 V _R = 200V, T _j = 100°C	—	—	15	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

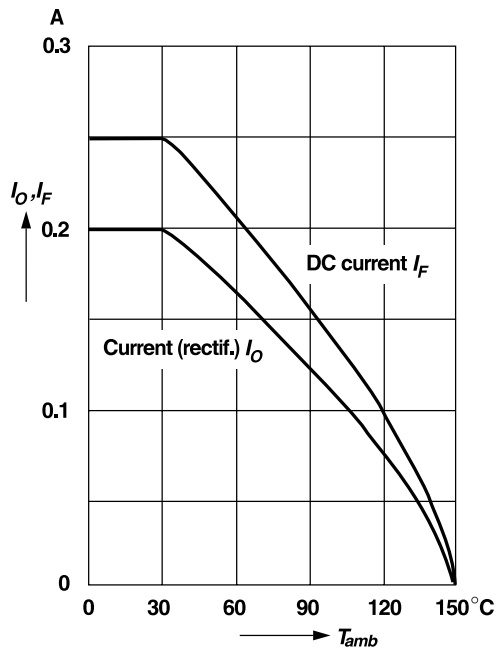
Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Forward characteristics



Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

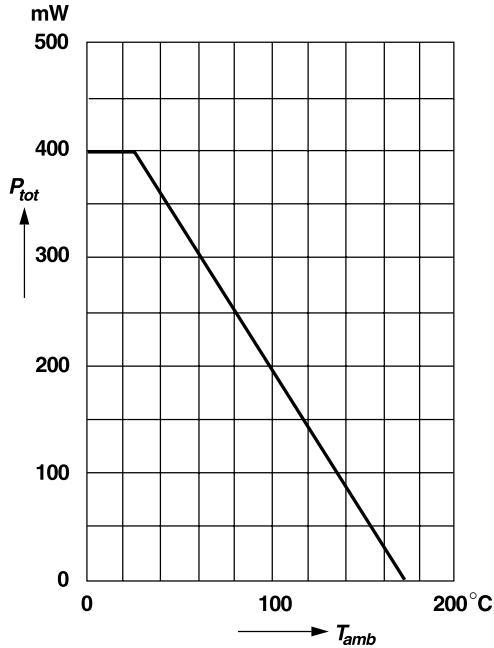




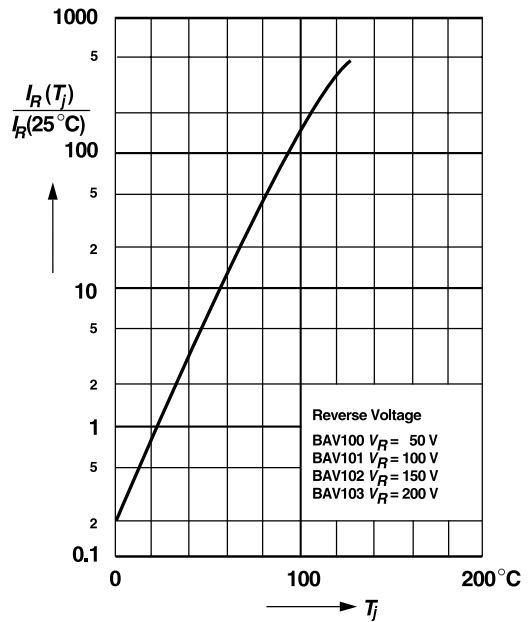
Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Admissible power dissipation versus ambient temperature

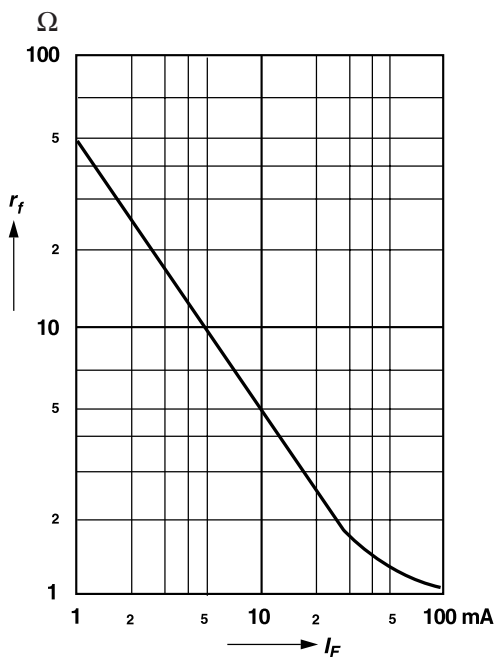
Valid provided that electrodes are kept at ambient temperature



Leakage current versus junction temperature



Dynamic forward resistance versus forward current



Capacitance versus reverse voltage

