BAV100 thru BAV103

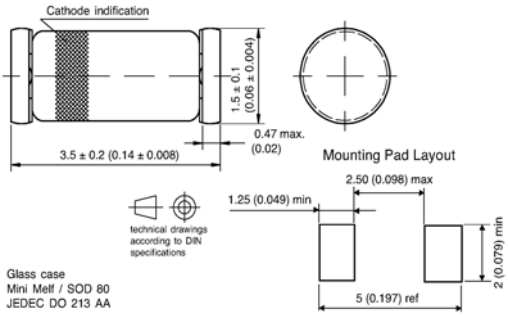
Small-Signal Diode
Fast Switching Diodes

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.

Mechanical Data

- Case: MiniMELF Glass Case (SOD-80)
- Weight: approx. 0.05g
- Cathode Band Color: Yellow



Maximum Ratings and Thermal Characteristics

(T_A=25°C unless otherwise noted.)

Parameter		Symbol	Limit	Unit
Continuous reverse voltage	BAV100 BAV101 BAV102 BAV103	V_R	50 100 150 200	Volts
Repetitive peak reverse voltage	BAV100 BAV101 BAV102 BAV103	V_{RRM}	60 120 200 250	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 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 and T_j=25°C		I_{FSM}	1.0	Amp
Power dissipation at T_{amb}=25°C (1)		P_{tot}	400	mW
Thermal resistance junction to ambient air (1)		$R_{\theta JA}$	375	°C/W
Junction temperature		T_j	175	°C
Storage temperature range (1)		T_S	-65 to +175	°C

Notes: 1. Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics

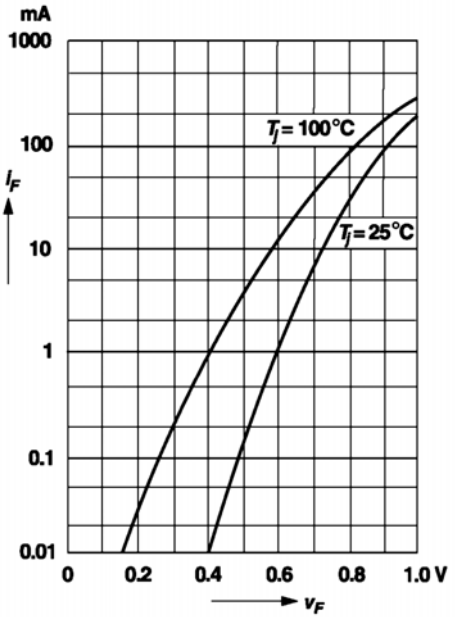
(T_J=25°C unless otherwise noted.)

Parameter		Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage		V_F	I_F=100mA I_F=200mA	-	-	1.00 1.25	Volts
Leakage current	BAV100	I_R	V_R=50V	-	-	100	nA
	BAV100		V_R=50V, T_j=100°C	-	-	15	uA
	BAV101		V_R=100V	-	-	100	nA
	BAV101		V_R=100V, T_j=100°C	-	-	15	uA
	BAV102		V_R=150V	-	-	100	nA
	BAV102		V_R=150V, T_j=100°C	-	-	15	uA
	BAV103		V_R=200V	-	-	100	nA
	BAV103		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

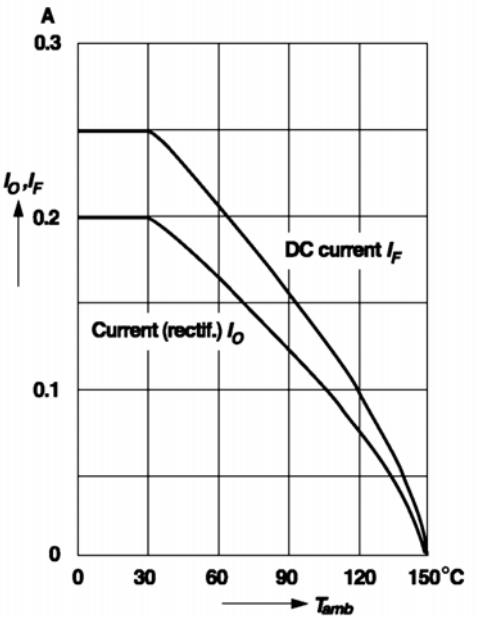
(T_A = 25°C unless otherwise noted.)

Forward characteristics



Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

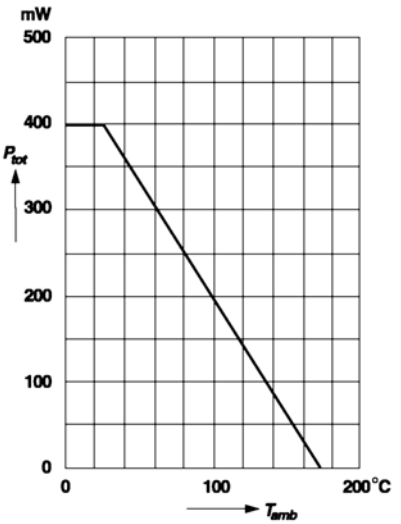


RATINGS AND CHARACTERISTIC CURVES

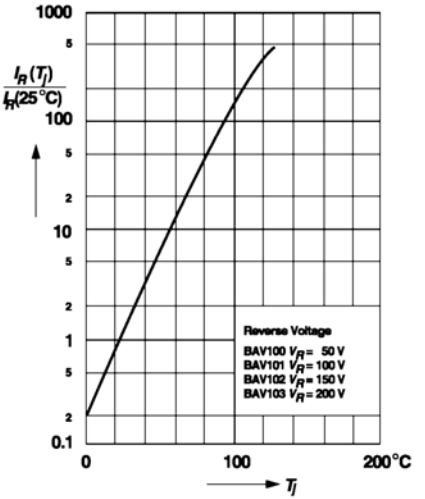
(T_A = 25°C unless otherwise noted.)

Admissible power dissipation versus ambient temperature

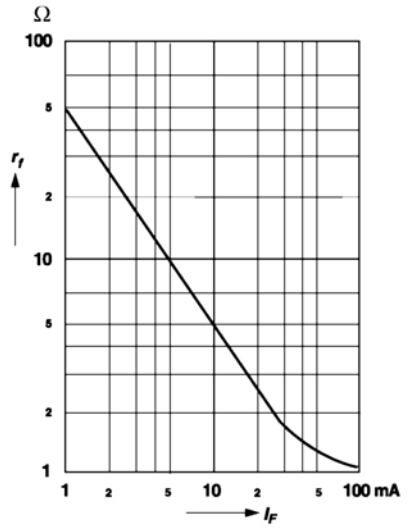
Valid provided that electrodes are kept at ambient temperature



Leakage current versus junction temperature



Dynamic forward resistance versus forward current



Capacitance versus reverse voltage