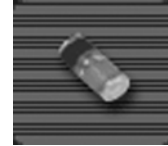


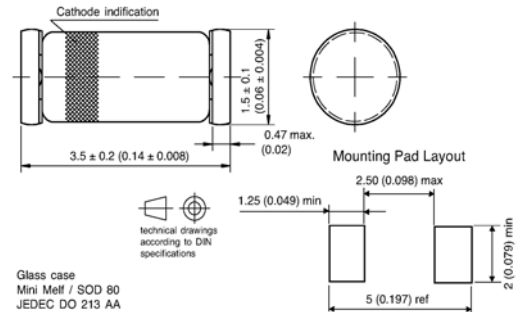
## Features

- ◆ 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

( $T_A=25^\circ\text{C}$  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 $T_{amb}=25^\circ\text{C}$ <sup>(1)</sup>		$I_F$	250 mA
Rectified current (Average) half wave rectification with resist. load at $T_{amb}=25^\circ\text{C}$ and $f \geq 50\text{Hz}$ <sup>(1)</sup>		$I_{F(AV)}$	200 mA
Repetitive peak forward current at $f \geq 50\text{Hz}$ , $\theta=180^\circ$ , $T_{amb}=25^\circ\text{C}$ <sup>(1)</sup>		$I_{FRM}$	625 mA
Surge forward current at $t < 1\text{s}$ and $T_j=25^\circ\text{C}$		$I_{FSM}$	1.0 Amp
Power dissipation at $T_{amb}=25^\circ\text{C}$ <sup>(1)</sup>		$P_{tot}$	400 mW
Thermal resistance junction to ambient air <sup>(1)</sup>		$R_{\theta JA}$	375 $^\circ\text{C/W}$
Junction temperature		$T_j$	175 $^\circ\text{C}$
Storage temperature range <sup>(1)</sup>		$T_S$	-65 to +175 $^\circ\text{C}$

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



**Electrical Characteristics**

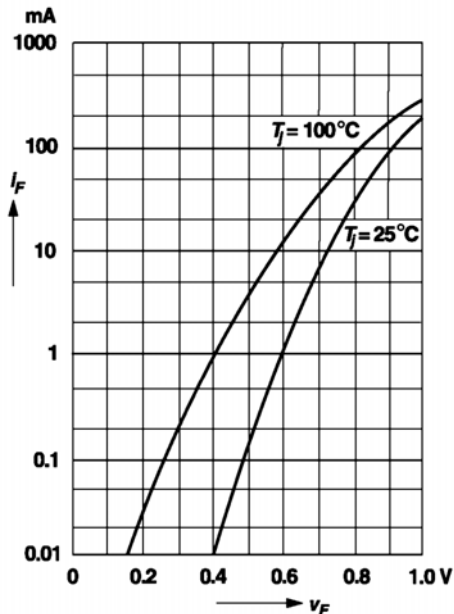
( $T_J = 25^\circ\text{C}$  unless otherwise noted.)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	$V_F$	$I_F = 100\text{mA}$ $I_F = 200\text{mA}$	-	-	1.00 1.25	Volts
Leakage current	$I_R$	BAV100 $V_R = 50\text{V}$	-	-	100	nA
		BAV100 $V_R = 50\text{V}, T_J = 100^\circ\text{C}$	-	-	15	$\mu\text{A}$
		BAV101 $V_R = 100\text{V}$	-	-	100	nA
		BAV101 $V_R = 100\text{V}, T_J = 100^\circ\text{C}$	-	-	15	$\mu\text{A}$
		BAV102 $V_R = 150\text{V}$	-	-	100	nA
		BAV102 $V_R = 150\text{V}, T_J = 100^\circ\text{C}$	-	-	15	$\mu\text{A}$
		BAV103 $V_R = 200\text{V}$	-	-	100	nA
BAV103 $V_R = 200\text{V}, T_J = 100^\circ\text{C}$	-	-	15	$\mu\text{A}$		
Dynamic forward resistance	$r_f$	$I_F = 10\text{mA}$	-	5	-	$\Omega$
Capacitance	$C_{tot}$	$V_R = 0\text{V}, f = 1\text{MHz}$	-	1.5	-	pF
Reverse recovery time	$t_{rr}$	$I_F = 30\text{mA}, I_R = 30\text{mA}$ $I_F = 3\text{mA}, R_L = 100\Omega$	-	-	50	ns

**RATINGS AND CHARACTERISTIC CURVES**

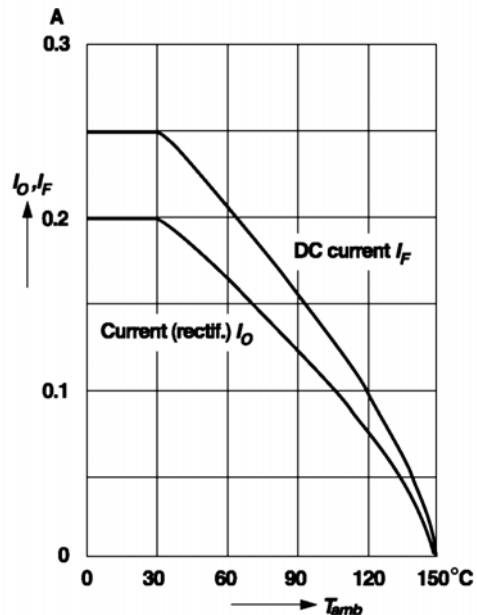
( $T_A = 25^\circ\text{C}$  unless otherwise noted.)

**Forward characteristics**



**Admissible forward current versus ambient temperature**

Valid provided that electrodes are kept at ambient temperature

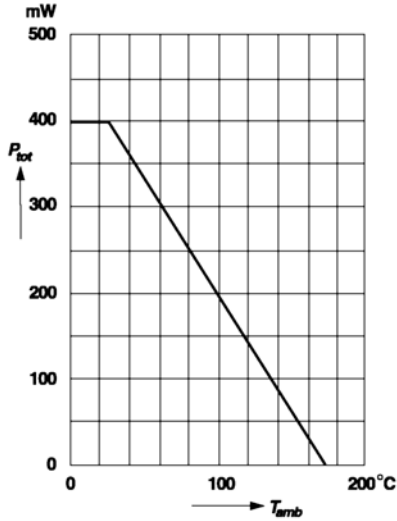


## RATINGS AND CHARACTERISTIC CURVES

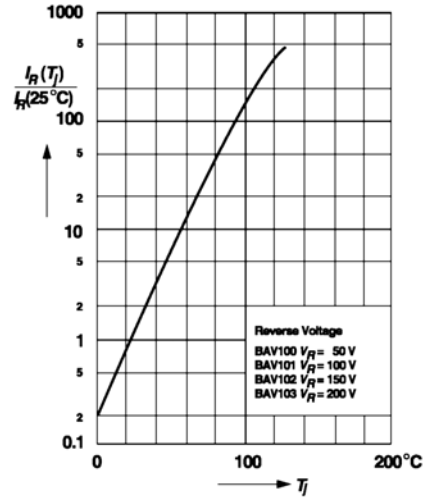
( $T_A = 25^\circ\text{C}$  unless otherwise noted.)

### Admissible power dissipation versus ambient temperature

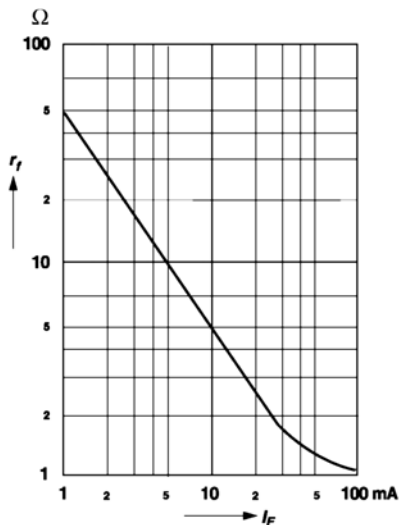
Valid provided that electrodes are kept at ambient temperature



### Leakage current versus junction temperature



### Dynamic forward resistance versus forward current



### Capacitance versus reverse voltage

