Kingtronics®

BAV100 THRU BAV103

FEATURE

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

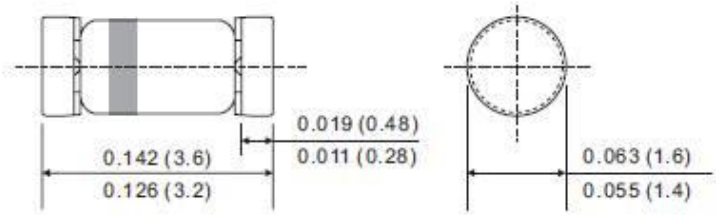
case with the type designations BAV19W to BAV21W,

and the SOT-23 case with the type designation

BAS19 - BAS21.

Small Signal Diodes

DO-213AA



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: DO-213AA Glass Case

Weight: approx. 0.05 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

Parameter		SYMBOLS	Value	UNITS
Reverse Voltage	BAV100	V_R	60	V
	BAV101	V_R	120	V
	BAV102	V_R	200	V
	BAV103	V_R	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 ³ 50 Hz		I_0	200[1]	mA
Repetitive Peak Forward Current at f ³ 50 Hz, Q = 180 °C, T_{amb} = 25 °C		I_{FRM}	625[1]	mA
Surge Forward Current at t < 1 s, T_j = 25 °C		I_{FCM}	1	A
Power Dissipation at T_{amb} = 25 °C		Ptot	400[1]	mW
Junction Temperature		Tj	175	℃
Storage Temperature Range		Ts	–65 to +175	℃

[1] Valid provided that electrodes are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS

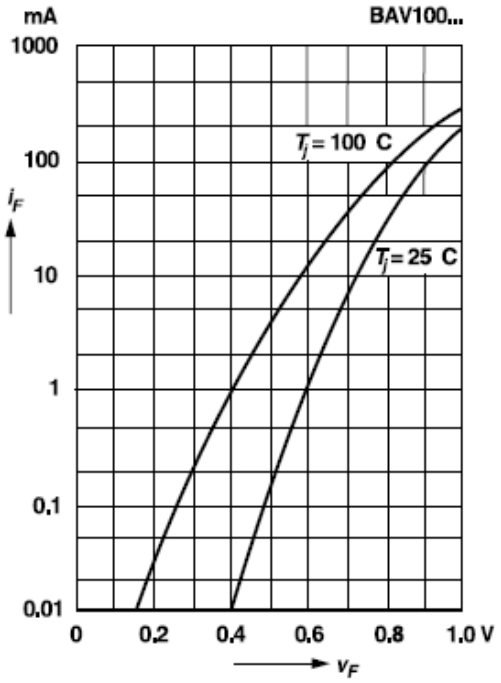
Ratings at 25 °C ambient temperature unless otherwise specified

	SYMBOLS	Min	Typ.	Max	UNIT
Forward voltage at I_F = 100 mA	V_F	–	–	1	V
Leakage Current					
at V_R = 50 V **BAV100**	I_R	-	-	100	nA
at V_R = 50 V, T_j = 100 °C **BAV100**	I_R	-	-	15	mA
at V_R = 100 V **BAV101**	I_R	-	-	100	nA
at V_R = 100 V, T_j = 100 °C **BAV101**	I_R	-	-	15	mA
at V_R = 150 V **BAV102**	I_R	-	-	100	nA
at V_R = 150 V, T_j = 100 °C **BAV102**	I_R	-	-	15	mA
at V_R = 200 V **BAV103**	I_R	-	-	100	nA
at V_R = 200 V, T_j = 100 °C **BAV103**	I_R	-	-	15	mA
Dynamic Forward Resistance at I_F = 10 mA	rf	-	5	-	W
Capacitance at V_R = 0, f = 1 MHz	C_{tot}		1.5	-	pF
Reverse Recovery Time from I_F = 30 mA through I_R = 30 mA to I_R = 3 mA; R_L = 100 W	t_{rr}		-	50	ns
Thermal Resistance Junction to Ambient Air	R_{thJA}		-	0.375[1)]	K/mW

[1)] Valid provided that electrodes are kept at ambient temperature.

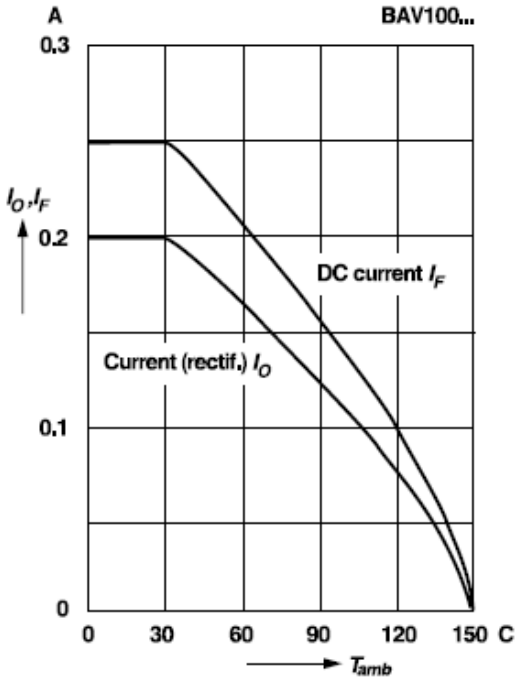
RATINGS AND CHARACTERISTIC CURVES BAV100 THRU BAV103

Forward characteristics



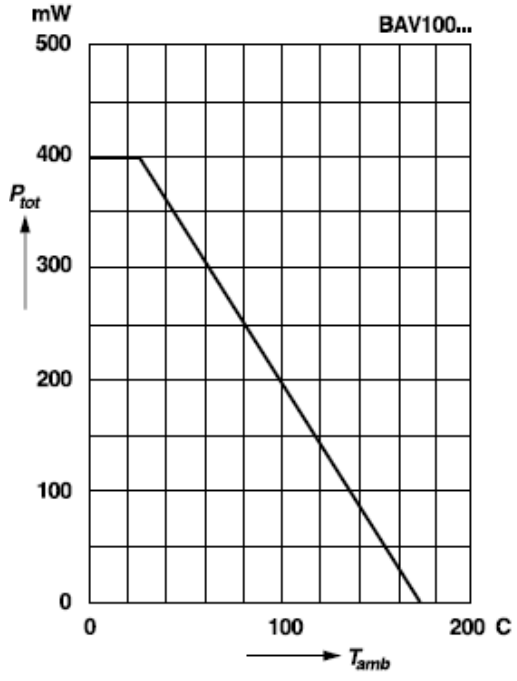
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

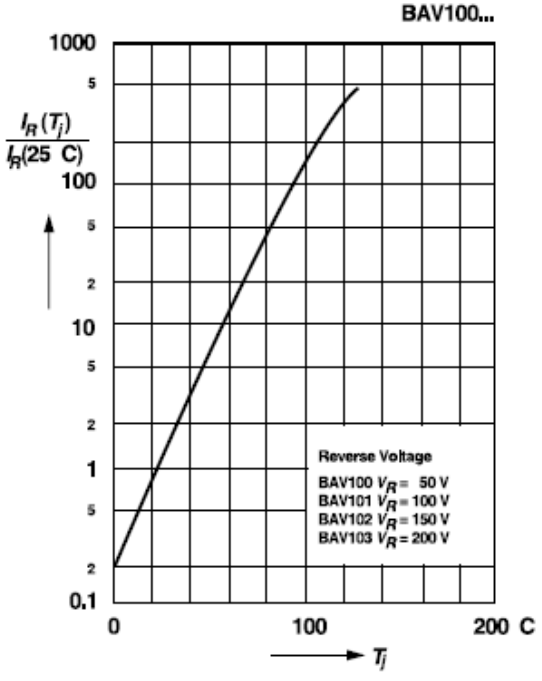


Admissible power dissipation versus ambient temperature

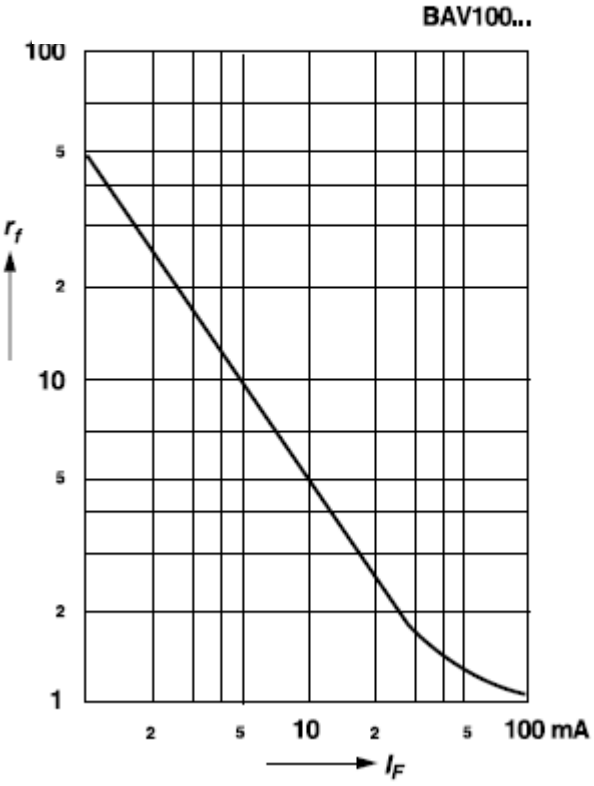
Valid provided that electrodes are kept at ambient temperature



Leakage current versus junction temperature



Dynamic forward resistance versus forward current



Capacitance versus reverse voltage