

TM

BAV100 THRU BAV103

Small Signal Diodes

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- For general purpose
- Silicon Epitaxial Planar Diodes
- 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.

Maximum Ratings

Continuous Reverse Voltage	BAV100 BAV101 BAV102 BAV103	V_R	50V 100V 150V 200V	$T_A=25^\circ\text{C}$
Repetitive Peak Reverse Voltage	BAV100 BAV101 BAV102 BAV103	V_{RRM}	60V 120V 200V 250V	$T_A=25^\circ\text{C}$
Forward DC Current		I_F	250mA	$T_A=25^\circ\text{C}^{(1)}$
Rectified Current (Average) Half Wave Rectification with Resist. Load		$I_{(FAV)}$	200mA	$f>50\text{Hz}$, $T_A=25^\circ\text{C}$
Repetitive Peak Forward Current		I_{FRM}	625mA	$f>50\text{Hz}$, $T_A=25^\circ\text{C}^{(1)}$
Surge Forward Current		I_{FSM}	1.0A	$T<1\text{s}$, $T_J=25^\circ\text{C}$
Power Dissipation		P_{TOT}	400mW	$T_A=25^\circ\text{C}$
Thermal Resistance Junction to Ambient Air ⁽²⁾		T_A	375°C/W	
Operating and Storage temperature Range		T_S, T_{STG}	-55 to +150°C	

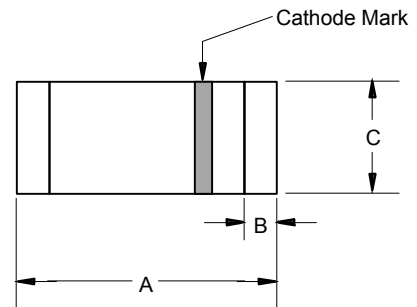
Note: (1) Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Forward Voltage $I_F=100\text{mA}$ $I_F=200\text{mA}$	V_F	1.00V 1.25V	$T_A=25^\circ\text{C}$
Maximum Leakage current BAV100 BAV100 BAV101 BAV101 BAV102 BAV102 BAV103 BAV103	I_R	100nA 15uA 100nA 15uA 100nA 15uA 100nA 15uA	$V_R=50\text{V}$ $V_R=50\text{V}$, $T_J=100^\circ\text{C}$ $V_R=100\text{V}$ $V_R=100\text{V}$, $T_J=100^\circ\text{C}$ $V_R=150\text{V}$ $V_R=150\text{V}$, $T_J=100^\circ\text{C}$ $V_R=200\text{V}$ $V_R=200\text{V}$, $T_J=100^\circ\text{C}$
Typical Capacitance	C_{TOT}	1.5pF	$V_R=0\text{V}$, $f=1.0\text{MHz}$
Maximum Reverse recovery time	t_{rr}	50ns	$I_F=30\text{mA}$, $I_R=30\text{mA}$ $I_R=3.0\text{mA}$, $R_i=100\text{OHM}$
Typical Dynamic Forward Resistance	R_F	5.0 OHM	$I_F=10\text{mA}$

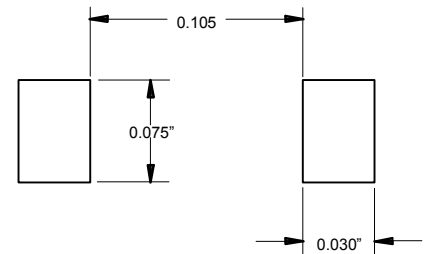
Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.
2. Valid provided that electrodes are kept at ambient temperature

MINIMELF(SOD-80C)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.134	.142	3.40	3.60	
B	.008	.016	0.20	0.40	
C	.055	.059	1.40	1.50	

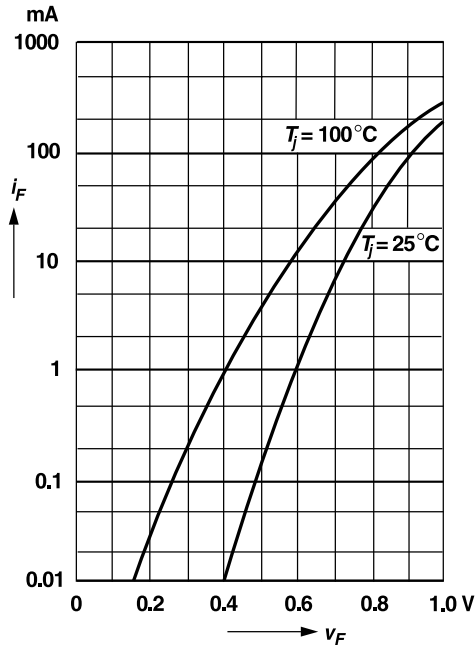
SUGGESTED SOLDER PAD LAYOUT



BAV100 thru BAV103

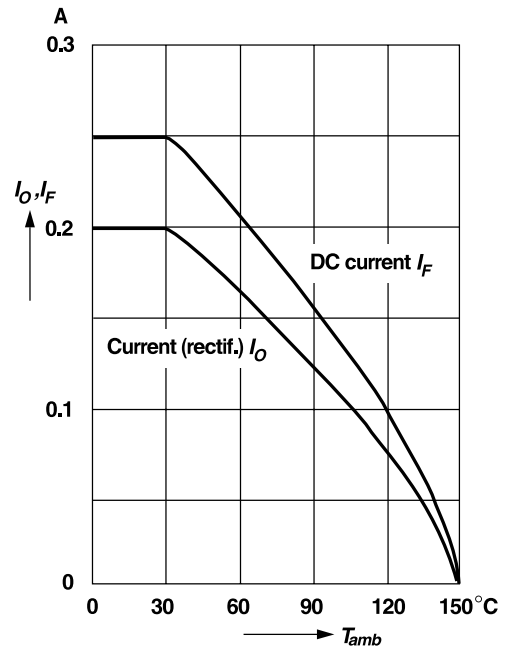
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Forward characteristics



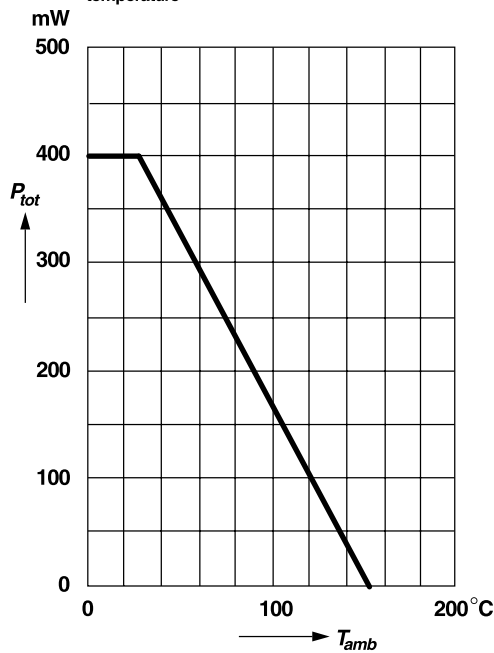
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

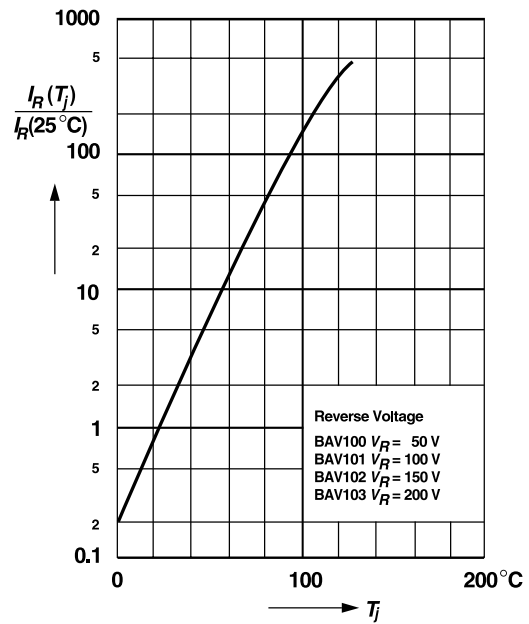


Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient temperature



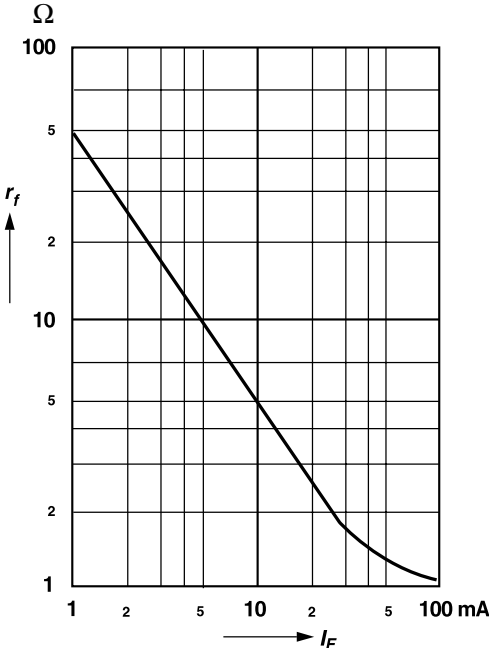
Leakage current versus junction temperature



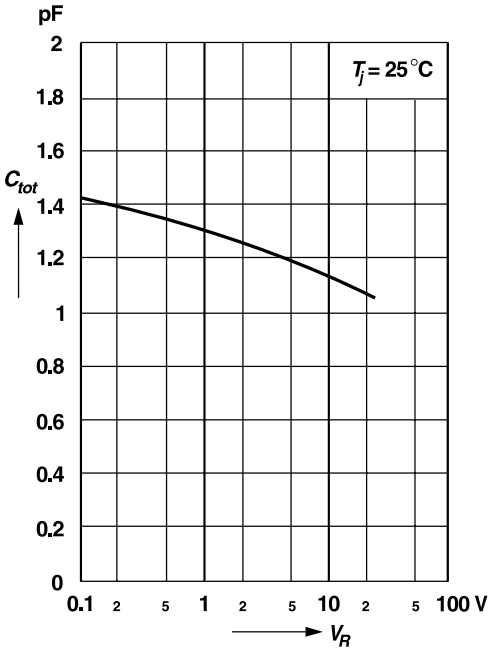
BAV100 thru BAV103

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Dynamic forward resistance versus forward current



Capacitance versus reverse voltage



Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;2.5Kpcs/Reel