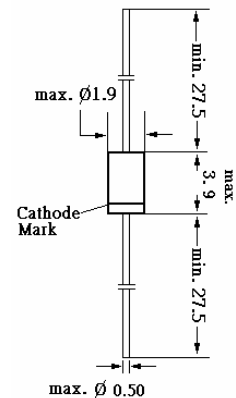


BAV19, BAV20, BAV21

HIGH VOLTAGE GENERAL PURPOSE DIODES



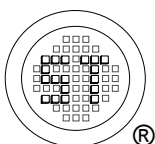
Glass case JEDEC DO-35

Dimensions in mm

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

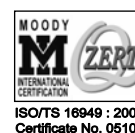
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	120 200 250	V
Reverse Voltage	V_R	100 150 200	V
Continuous Forward Current	I_F	250	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	9 3 1	A
Total Power Dissipation	P_{tot}	500	mW
Thermal Resistance, Junction to Ambient ¹⁾	$R_{\theta JA}$	375	K/W
Thermal Resistance, Junction to Tie-point ¹⁾	$R_{\theta JTP}$	240	K/W
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_S	- 65 to + 175	$^\circ\text{C}$

¹⁾ Lead length 10 mm



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)

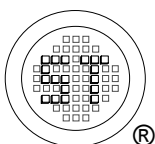


Dated : 22/08/2006

BAV19, BAV20, BAV21

Characteristics at $T_a = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	V_R	120 200 250	- - -	V
Reverse Current at $V_R = 100\text{ V}$ at $V_R = 150\text{ V}$ at $V_R = 200\text{ V}$ at $V_R = 100\text{ V}$, $T_A = 150\text{ }^{\circ}\text{C}$ at $V_R = 150\text{ V}$, $T_A = 150\text{ }^{\circ}\text{C}$ at $V_R = 200\text{ V}$, $T_A = 150\text{ }^{\circ}\text{C}$	I_R	- - - - - -	100 100 100 100 100 100	nA nA nA μA μA μA
Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$	V_F	- -	1 1.25	V
Diode Capacitance at $f = 1\text{ MHz}$	C_d	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30\text{ mA}$, $I_{RR} = 3\text{ mA}$, $R_L = 100\text{ }\Omega$	t_{rr}	-	50	ns



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103

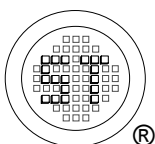
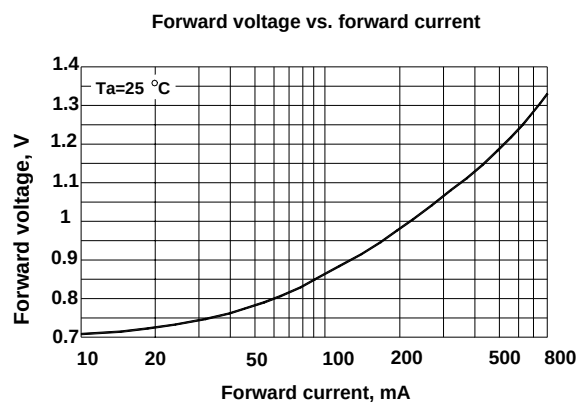
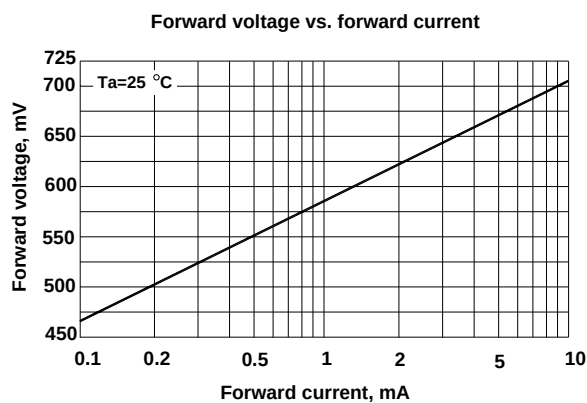
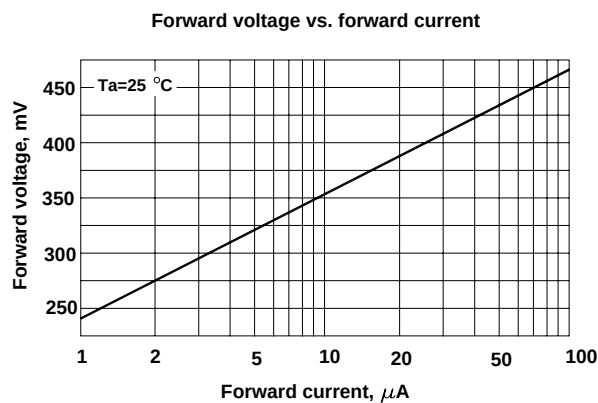
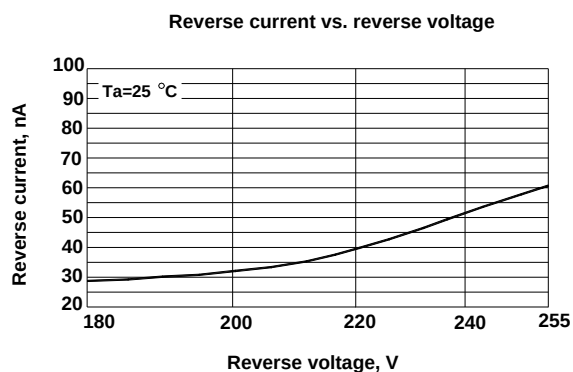
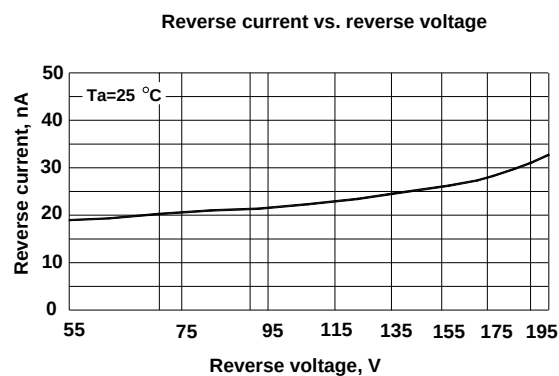
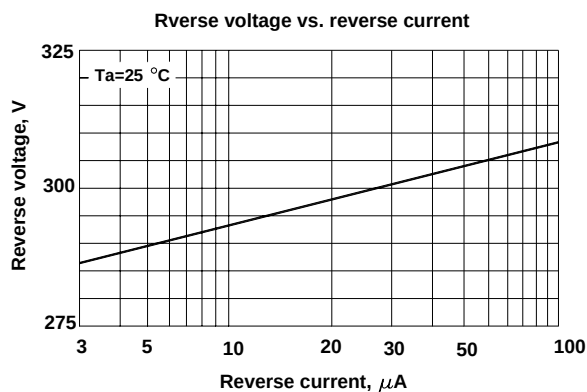


ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

Dated : 22/08/2006



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116

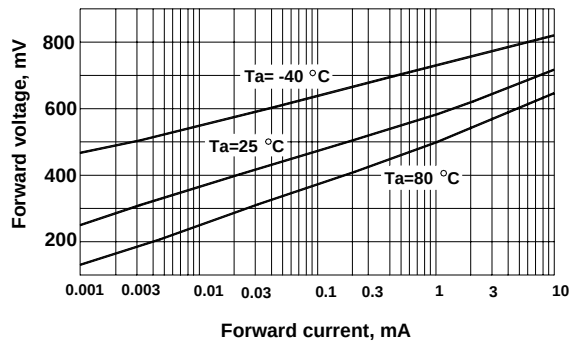


ISO 9001:2000
Certificate No. 0506098

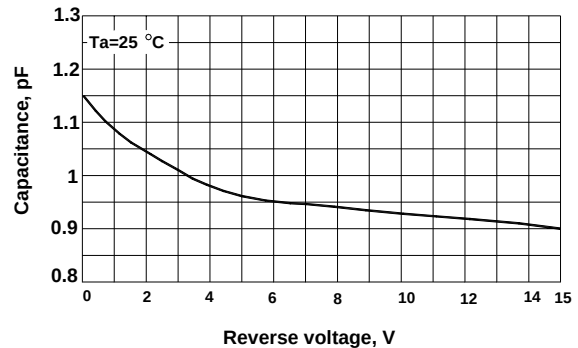
Dated : 22/08/2006

BAV19, BAV20, BAV21

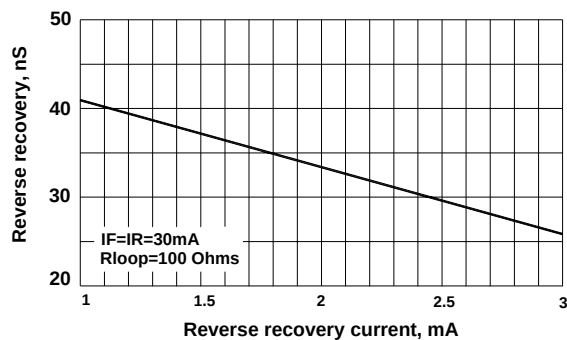
Forward voltage vs. ambient temperature



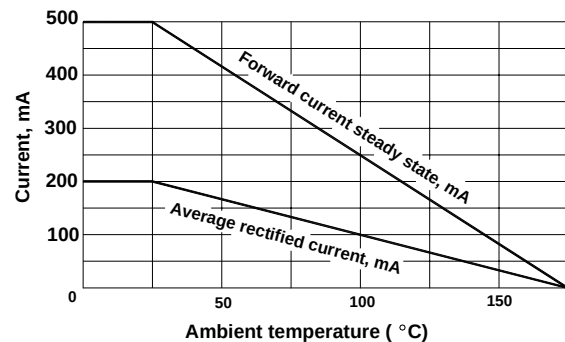
Capacitance vs. reverse voltage



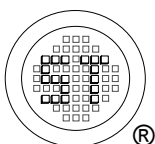
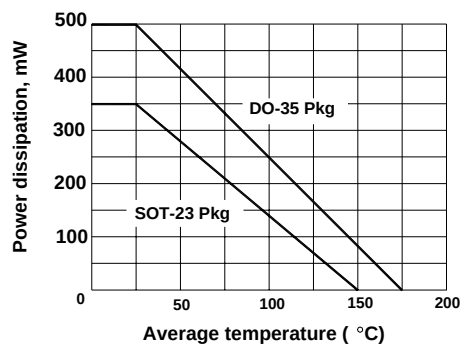
Reverse recovery time vs. reverse recovery current



Average rectified current & forward current vs. ambient temperature



Power derating curve



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
 Certificate No. 05103



ISO 14001:2004
 Certificate No. 7116



ISO 9001:2000
 Certificate No. 0506098

Dated : 22/08/2006