

Silicon Epitaxial Planar Diodes

High voltage switching diode

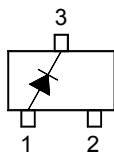
BAV23 Marking Code: **HC**

BAV23SE Marking Code: **PY**

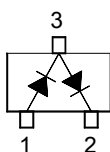
BAV23CC Marking Code: **PZ**

BAV23CA Marking Code: **RA**

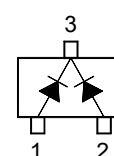
BAV23



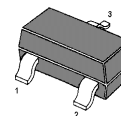
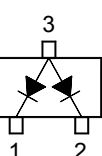
BAV23SE



BAV23CC



BAV23CA



SOT23

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

Parameter	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	V_{RRM}	250	V
Reverse Voltage	V_R	200	V
Forward Current	$I_{F(AV)}$	400	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	1.7	A
at $t = 10\text{ ms}$		3	
at $t = 100\text{ }\mu\text{s}$		9	
Power Dissipation	P_{tot}	350	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	250	-	V
Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$	V_F	- -	1 1.25	V
Reverse Current at $V_R = 200\text{ V}$, $T_j = 25\text{ }^{\circ}\text{C}$ at $V_R = 200\text{ V}$, $T_j = 150\text{ }^{\circ}\text{C}$	I_R	- -	100 100	nA μA
Total Capacitance at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_{tot}	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30\text{ mA}$, $I_{rr} = 0.1 \times I_R$, $R_L = 100\text{ }\Omega$	t_{rr}	-	50	ns

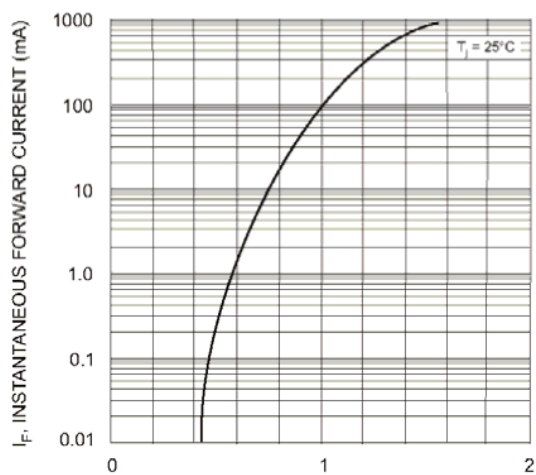


Fig. 1 Forward Characteristics

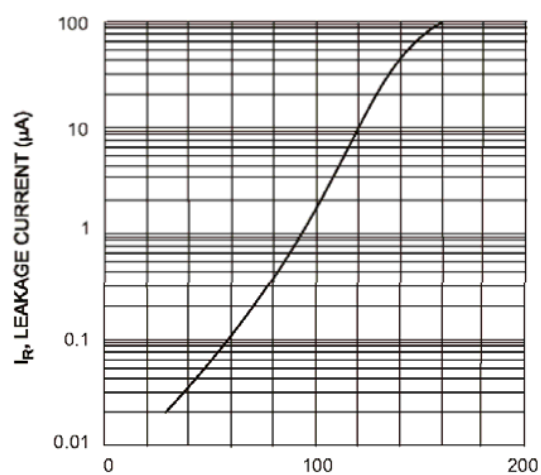
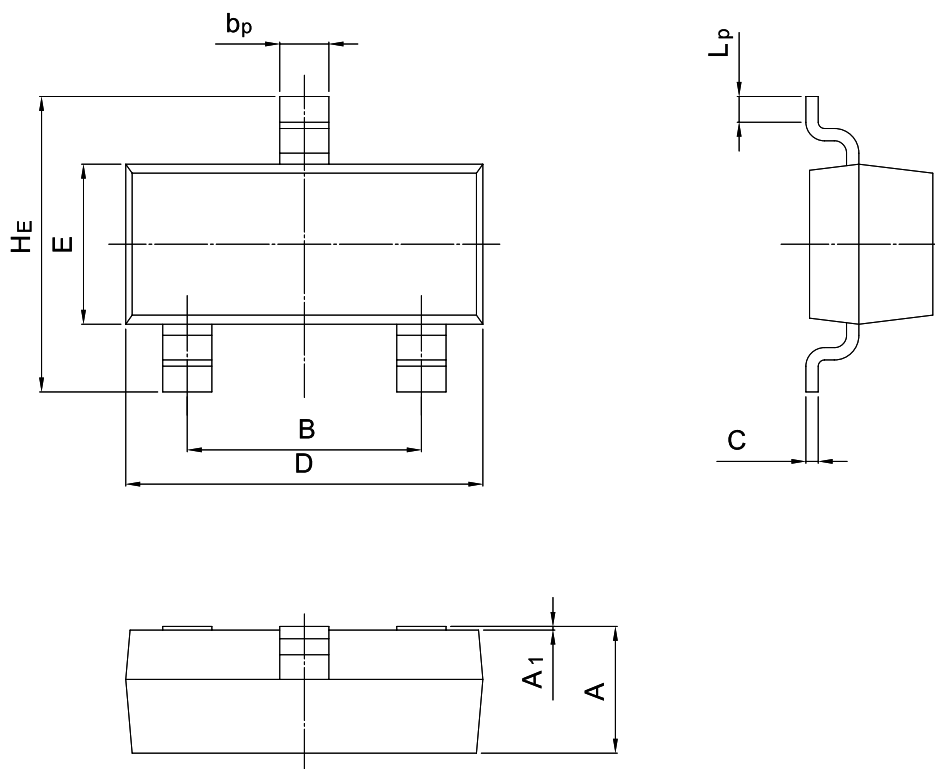


Fig. 2 Leakage Current vs Junction Temperature

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20

