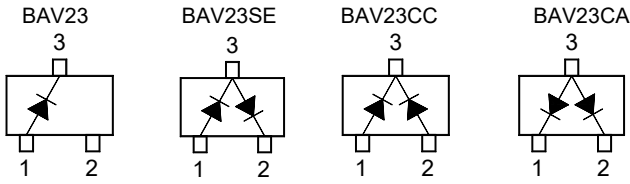
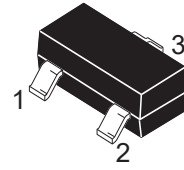




### Features

High voltage switching diode

SOT-23



BAV23            Marking: **HC**  
 BAV23SE        Marking: **PY**  
 BAV23CC        Marking: **PZ**  
 BAV23CA        Marking: **RA**

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

Parameter	Symbol	Value	Units
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 3 9	A
		at $t = 10\text{ ms}$ at $t = 100\text{ }\mu\text{s}$ at $t = 1\text{ }\mu\text{s}$	
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 $T_a = 25\text{ }^\circ\text{C}$

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 $\mu\text{A}$
Total Capacitance at $V_R = 0\text{ V}, f = 1\text{ MHz}$	$C_{tot}$	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30\text{ mA}, I_{tr} = 0.1 \times I_R, R_L = 100\text{ }\Omega$	$t_{rr}$	-	50	ns



**Rating and Characteristics Curves**

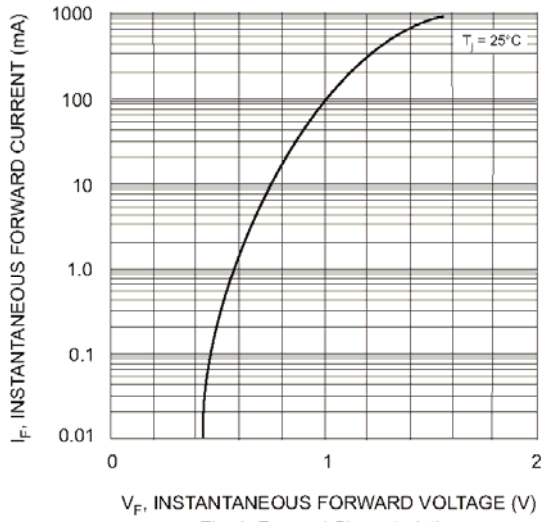


Fig. 1 Forward Characteristics

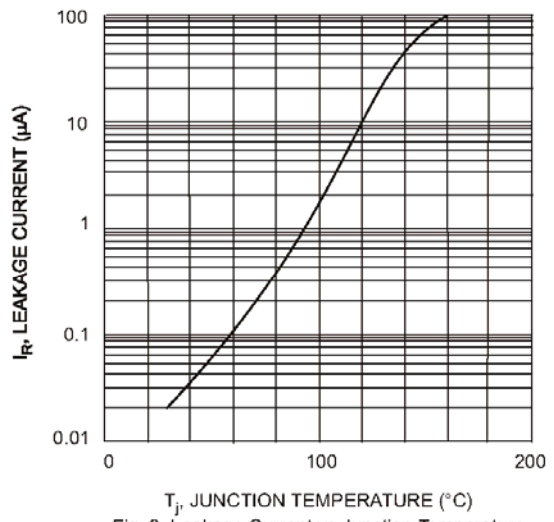


Fig. 2 Leakage Current vs Junction Temperature

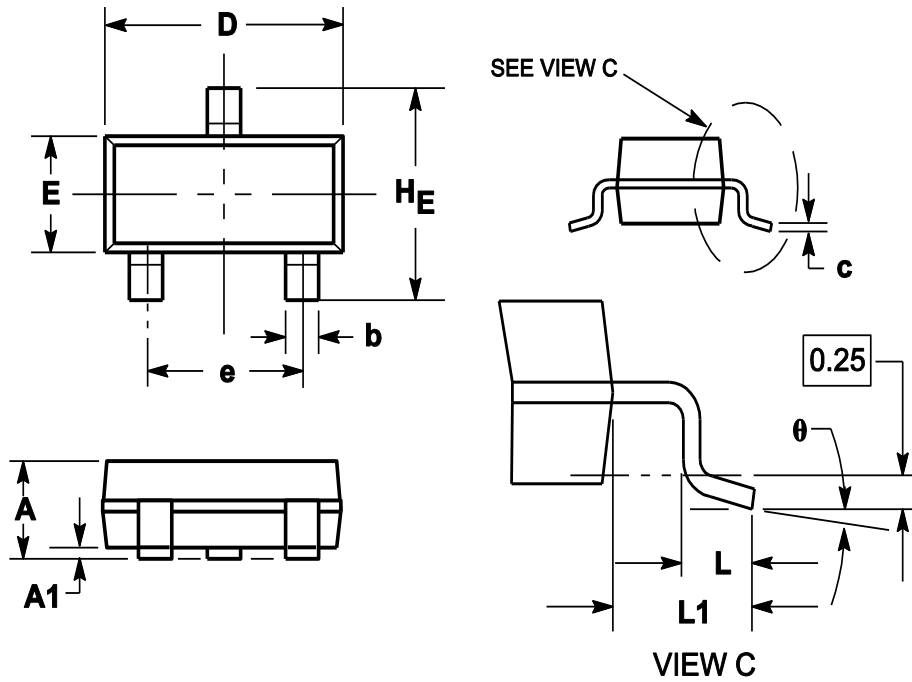


# BAV23 / SE / CC / CA

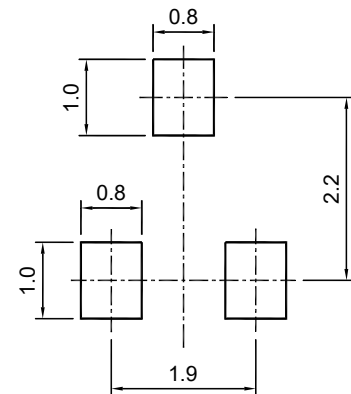
## Silicon Epitaxial Planar Diodes

### Package Outline

#### SOT-23



Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	0.900	1.025	1.150
A1	0.000	0.050	0.100
b	0.300	0.400	0.500
c	0.080	0.115	0.150
D	2.800	2.900	3.000
E	1.200	1.300	1.400
HE	2.250	2.400	2.550
e	1.800	1.900	2.000
L1	0.550REF		
L	0.300		0.500
θ	0°		8°



SOT-23 (TO-236)

**Recommended soldering pad**

### Ordering Information

Device	Package	Shipping
BAV23 Series	SOT-23	3000/Reel&Tape(7inch)