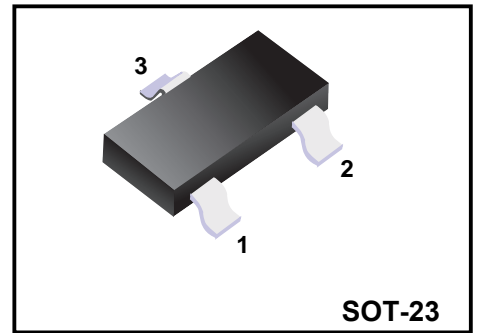
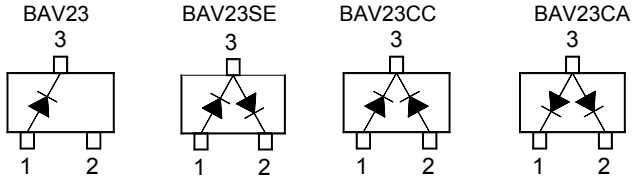


Silicon Epitaxial Planar Diodes

High voltage switching diode



Marking Code	
BAV23	HC
BAV23SE	PY
BAV23CC	PZ
BAV23CA	RA

Absolute Maximum Ratings (Ta = 25 °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 3 9	A
		at t = 10 ms	
		at t = 100 μ s	
		at t = 1 μ s	
Power Dissipation	P_{tot}	350	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357	$^{\circ}C/W$
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^{\circ}C$

Characteristics at Ta=25°C

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu A$	$V_{(BR)R}$	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 $V_R = 200 \text{ V}$, $T_j = 25 \text{ }^{\circ}C$ at $V_R = 200 \text{ V}$, $T_j = 150 \text{ }^{\circ}C$	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 $I_F = I_R = 30 \text{ mA}$, $I_{rr} = 0.1 \times I_R$, $R_L = 100 \Omega$	t_{rr}	-	50	ns

Typical Characteristics

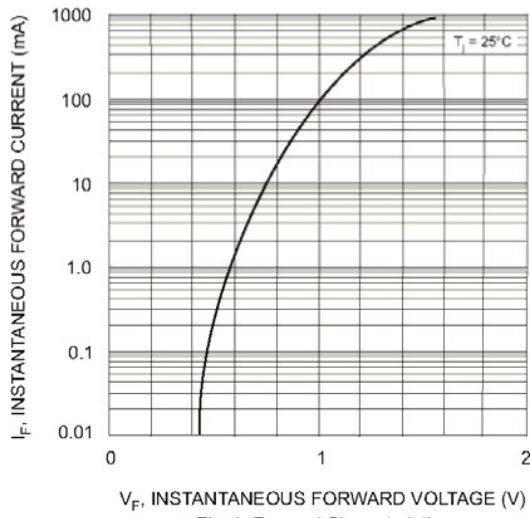


Fig. 1 Forward Characteristics

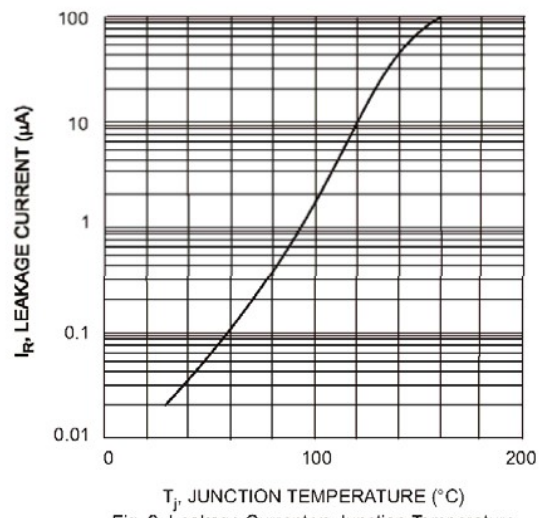


Fig. 2 Leakage Current vs Junction Temperature

Ordering information

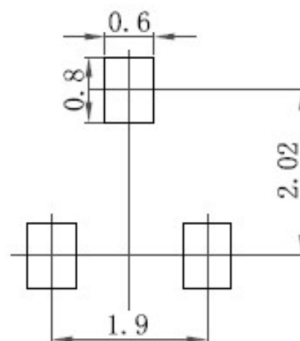
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



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