



BAV23A/C/S

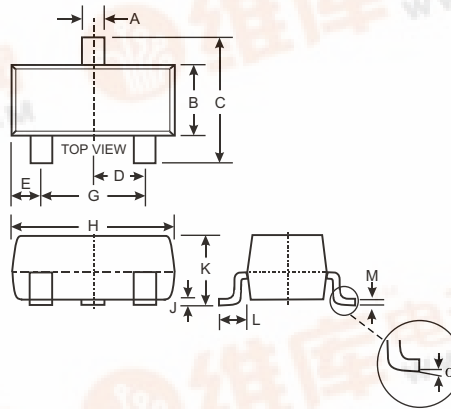
SURFACE MOUNT SWITCHING DIODE

Features

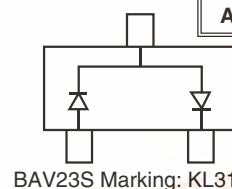
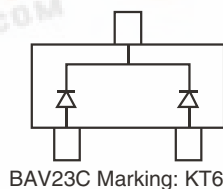
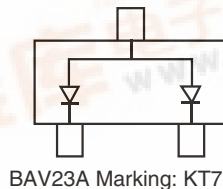
Fast Switching Speed
Surface Mount Package Ideally Suited for Automatic Insertion
For General Purpose Switching Applications
High Conductance

Mechanical Data

Case: SOT-23, Molded Plastic
Case material - UL Flammability Rating Classification 94V-0
Moisture sensitivity: Level 1 per J-STD-020A
Terminals: Solderable per MIL-STD-202, Method 208
Polarity: See Diagrams Below
Marking: See Diagrams Below & Page 2
Weight: 0.008 grams (approx.)



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.85	0.80
	0	8
All Dimensions in mm		



Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic		Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	250	V
Working Peak Reverse Voltage	V_{RWM}	200	V
DC Blocking Voltage	V_R		V
RMS Reverse Voltage	$V_{R(RMS)}$	141	V
Forward Continuous Current	I_{FM}	400	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{ s}$ @ $t = 100\text{ s}$ @ $t = 10\text{ms}$	I_{FSM}	9.0 3.0 1.7	A
Repetitive Peak Forward Surge Current (Note 2)	I_{FRM}	625	mA
Power Dissipation (Note 2)	P_d	350	mW
Thermal Resistance Junction to Ambient Air (Note 2)	R_{JA}	357	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	$^\circ\text{C}$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Forward Voltage (Note 1)	V_F		1.0 1.25	V	$I_F = 100\text{mA}$ $I_F = 200\text{mA}$
Reverse Current @ Rated DC Blocking Voltage (Note 1)	I_R		100	nA A	$T_J = 25^\circ\text{C}$ $T_J = 150^\circ\text{C}$
Total Capacitance	C_T		5.0	pF	$V_R = 0, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}		50	ns	$I_F = I_R = 30\text{mA}$, $I_{rr} = 0.1 \times I_R, R_L = 100$

Notes: 1. Short duration test pulse used to minimize self-heating effect.
2. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.

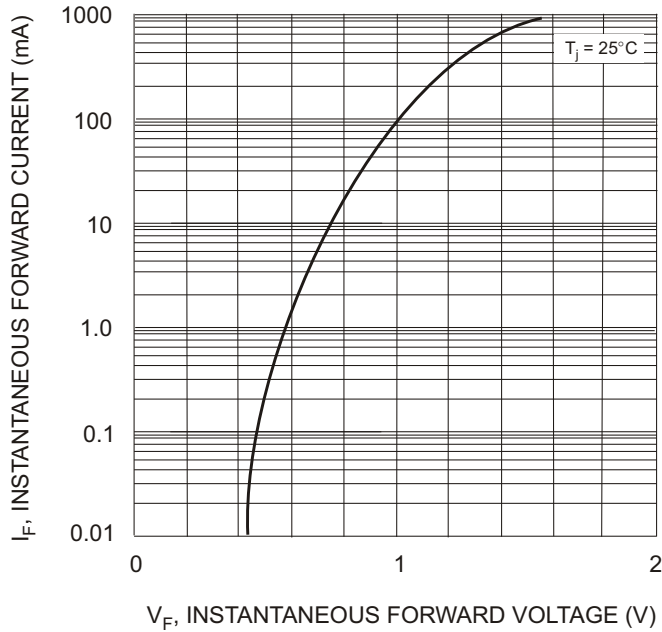


Fig. 1 Forward Characteristics

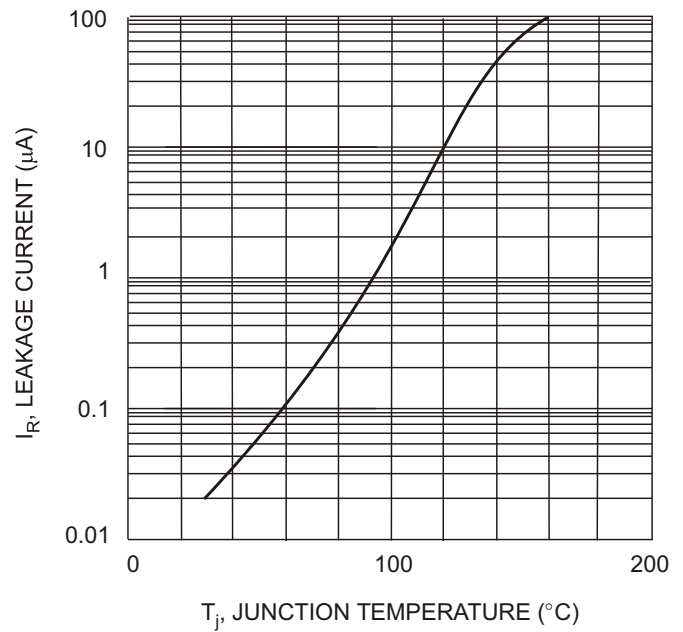


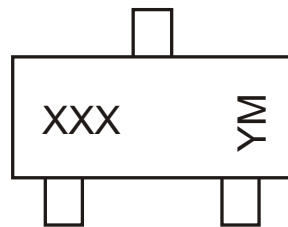
Fig. 2 Leakage Current vs Junction Temperature

Ordering Information (Note 3)

Device	Packaging	Shipping
BAV23A-7 BAV23C-7 BAV23S-7	SOT-23	3000/Tape & Reel

Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



XXX = Product Type Marking Code (See Page 1)
 YM = Date Code Marking
 Y = Year ex: N = 2002
 M = Month ex: 9 = September

Date Code Key

Year	2001	2002	2003	2004	2005
Code	M	N	P	R	S

Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D