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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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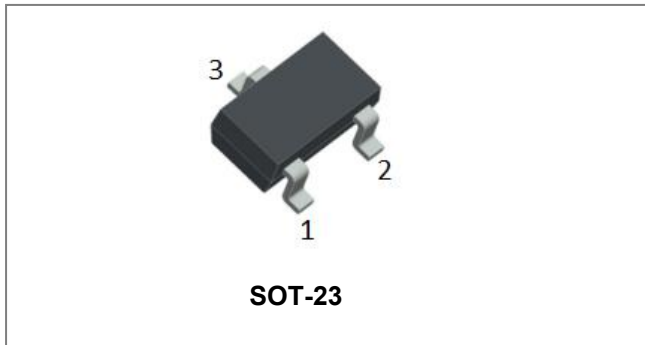
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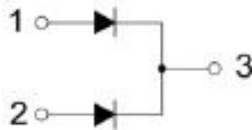
## BAV70 SWITCHING DIODE



### Features

- **High Conductance**
- **Fast Switching**
- **Surface Mount Package Ideally Suited for Automatic Insertion**
- **For General Purpose and Switching**
- **Plastic Material - UL Recognition Flammability Classification 94V-0**
- **This is a Pb - Free Device**
- **All SMC parts are traceable to the wafer lot**
- **Additional testing can be offered upon request**

### Schematic & Pin Configuration



### Mechanical Characteristics

- **Case: SOT-23, Molded Plastic**
- **Terminals: Plated leads Solderable per MIL-STD-202, Method 208**
- **Mounting Position: Any**
- **Marking: A4**

### Maximum Ratings@T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Limits	Units
Reverse Voltage	V <sub>R</sub>	70	V
Forward Current	I <sub>F</sub>	200	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I <sub>FSM</sub>	2.0	A
Power Dissipation	P <sub>D</sub>	225	mW
Typical Thermal Resistance, Junction to Ambient Air	R <sub>θJA</sub>	556	°C/W
Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

### Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Units	Test Condition
Reverse Breakdown Voltage*	V <sub>BR</sub>	70	-	V	@I <sub>F</sub> =100uA
Forward Voltage*	V <sub>F</sub>	-	0.715 0.855 1 1.25	V	@I <sub>F</sub> =1mA @I <sub>F</sub> =10mA @I <sub>F</sub> =50mA @I <sub>F</sub> =150mA
Reverse Leakage Current*	I <sub>R</sub>	-	2.5	uA	@V <sub>R</sub> =70V
Capacitance between terminals	C <sub>T</sub>	-	1.5	pF	V <sub>R</sub> =0V, f=1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	-	6.0	ns	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>RR</sub> =0.1 × I <sub>R</sub> , R <sub>L</sub> =100Ω

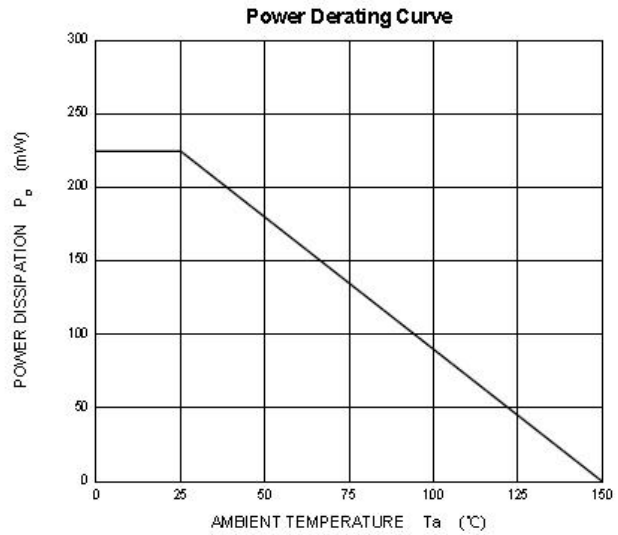
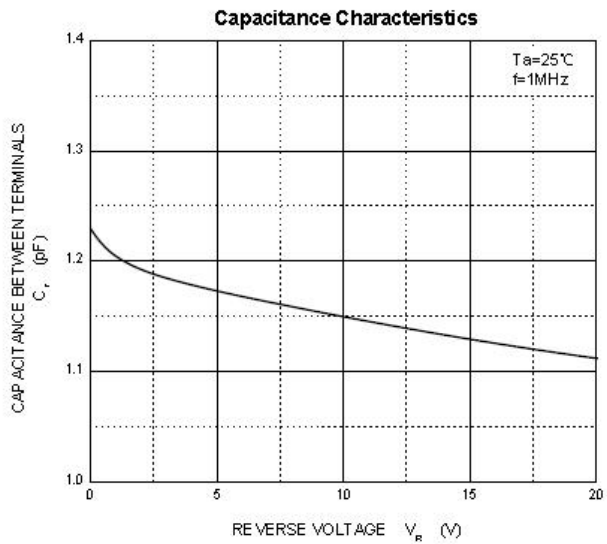
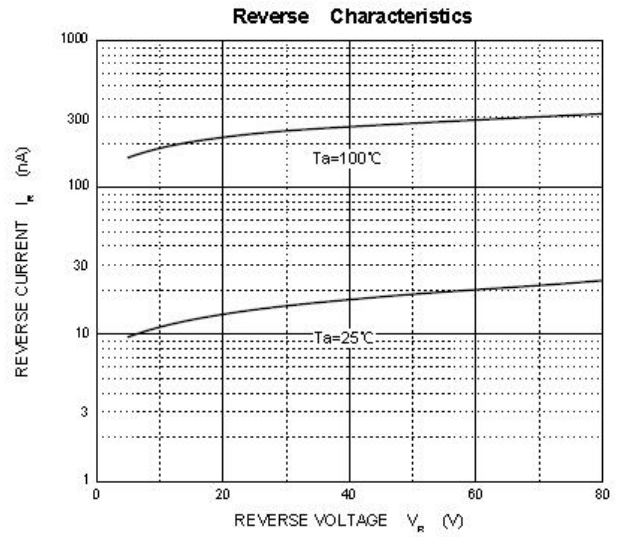
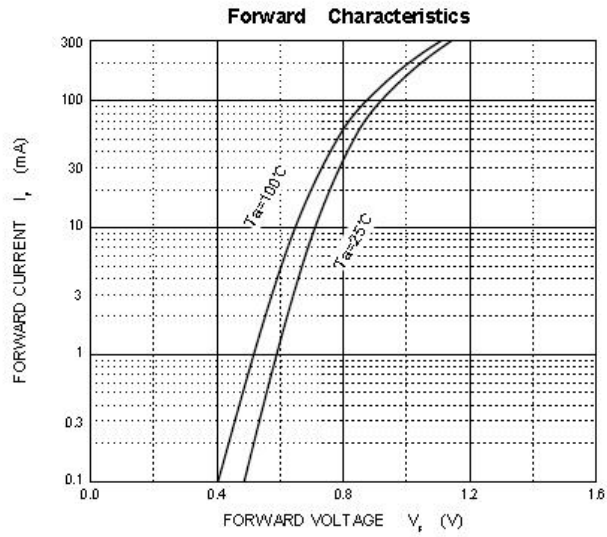
\* Pulse width < 300 μs, duty cycle < 2%

Note: 1. Device mounted on fiberglass substrate 40×40×1.5mm

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •



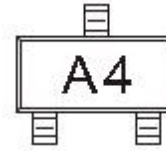
**Ratings and Characteristics Curves**



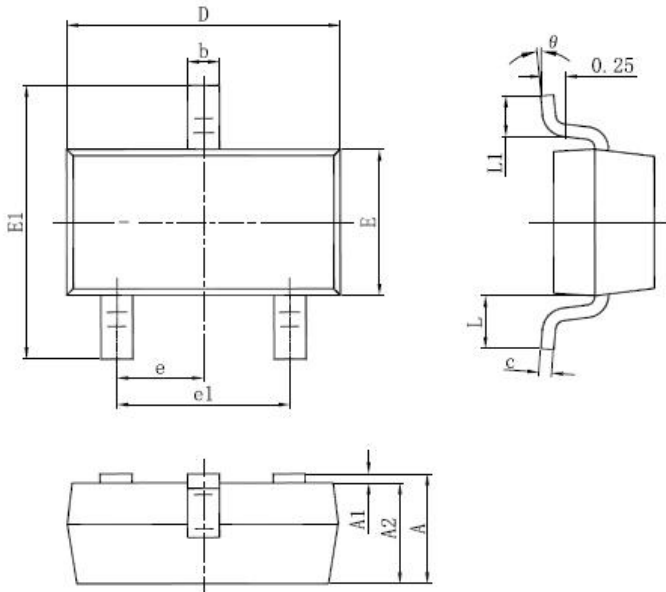
**Ordering Information**

Device	Package	Shipping
BAV70	SOT-23 (Pb-Free)	3000pcs / reel

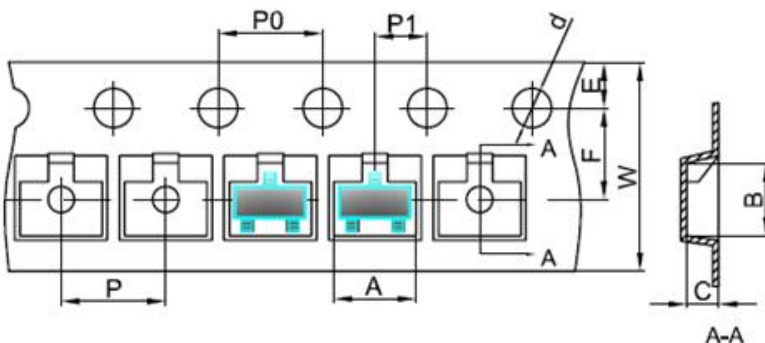
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**


A4 = Marking Code

**Mechanical Dimensions SOT-23**


SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	0.890	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.076	0.170	0.003	0.007
D	2.650	3.050	0.104	0.120
E	1.190	1.400	0.047	0.055
E1	2.100	2.550	0.083	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.780	2.050	0.070	0.081
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
$\theta$	0°	8°	0°	8°

**Carrier Tape Specification SOT-23**


SYMBOL	Millimeters	
	Min.	Max.
A	3.05	3.25
B	2.67	2.87
C	1.12	1.32
d	1.40	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

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