

## SOT-23 Plastic-Encapsulate Switching Diode

### Features

- 6nS; Fast Switching Device (TRR <6nS)
- 225mW; Power Dissipation of 225mW
- High Stability and High Reliability
- Low reverse leakage



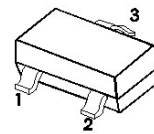
Marking:

SOT-23

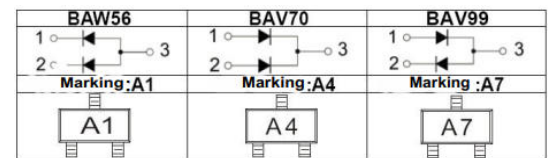
### Mechanical Data

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

#### Pin definition



#### Equivalent circuit



### Maximum Ratings & Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

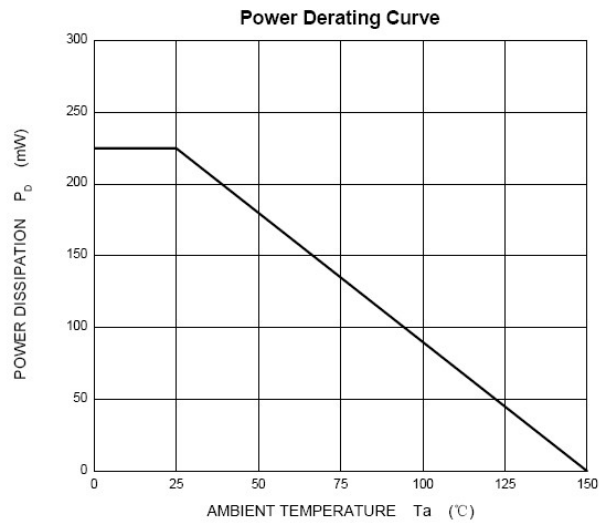
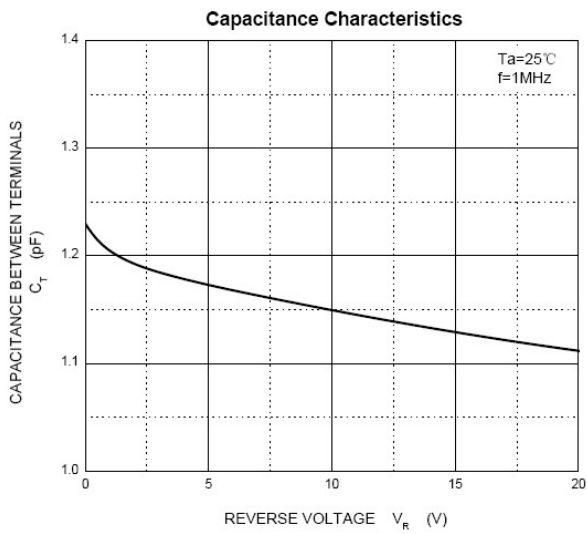
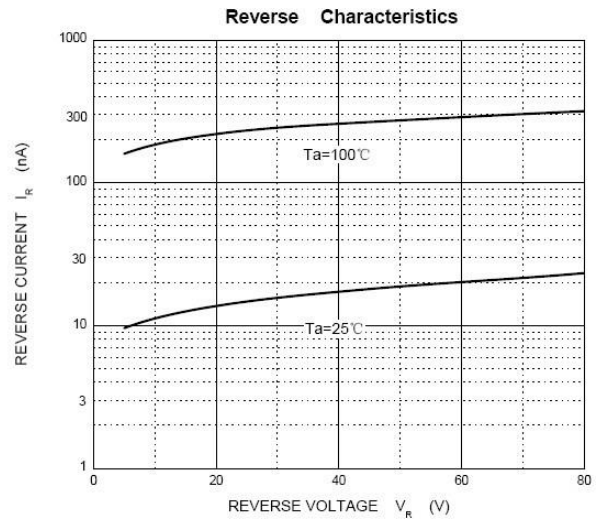
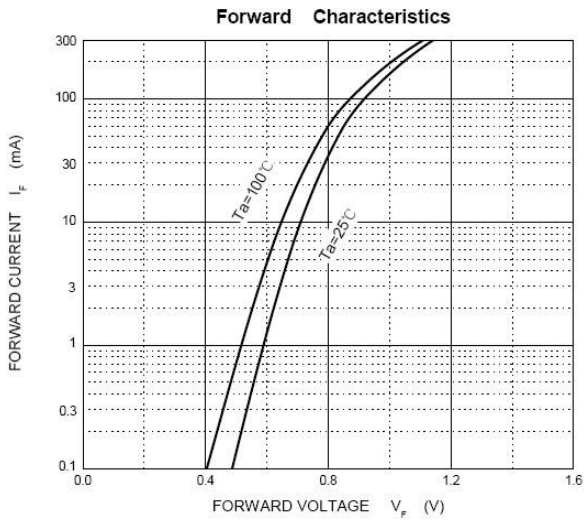
Parameter	Symbol	Value	Unit
Reverse Voltage	V <sub>R</sub>	70	V
Power Dissipation	P <sub>D</sub>	225	mW
Operating junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>S</sub>	-65-+150	°C
Peak Forward Surge Current @t <sub>p</sub> =1ms; T <sub>A</sub> =25°C	I <sub>FSM</sub>	2.0	A
Non-repetitive Peak Forward Current	I <sub>FM</sub>	400	mA
Average Rectified Current	I <sub>O</sub>	200	mA
Typical thermal resistance	R <sub>θJA</sub>	500	°C/W

### Electrical Specifications (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Limits		Unit
			Min	Max	
Reverse Voltage	V <sub>BR</sub>	I <sub>B</sub> =100uA	70		V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =70V		2.5	uA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1mA		0.715	V
		I <sub>F</sub> =10mA		0.855	
		I <sub>F</sub> =50mA		1.00	
		I <sub>F</sub> =150mA		1.25	
Reverse Recovery Time	T <sub>RR</sub>	I <sub>F</sub> = I <sub>R</sub> =10mA, R <sub>L</sub> =100Ω I <sub>RR</sub> =0.1xI <sub>R</sub>		6	nS
Capacitance	C <sub>T</sub>	V <sub>R</sub> =0V, f=1MHZ		1.5	pF

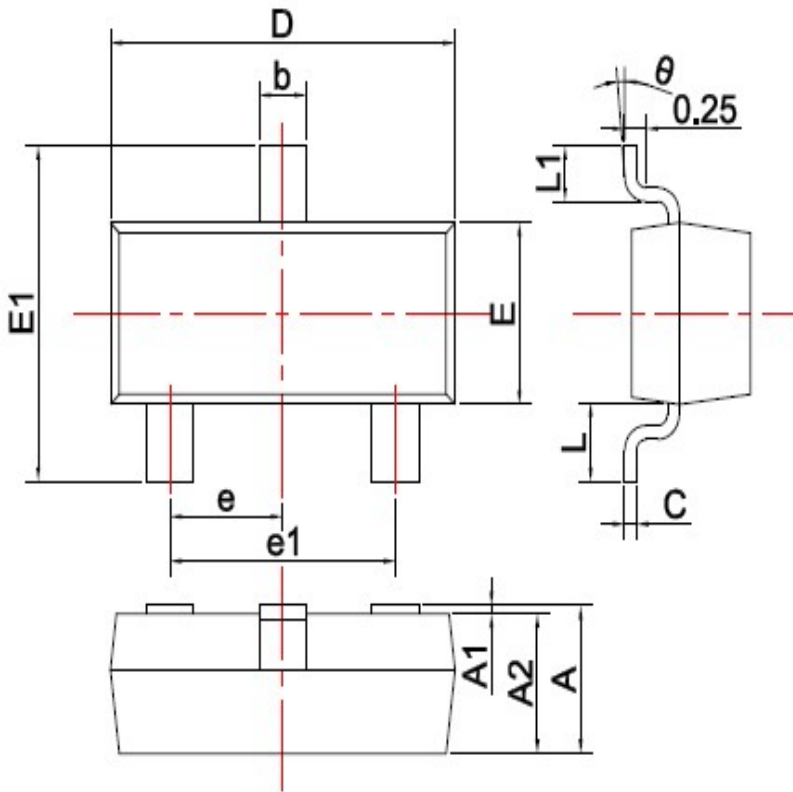
## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)



## Package Outline Dimensions

in inches (millimeters)



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

## Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.02.17	First issue

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