



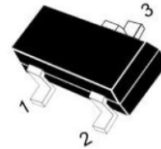
# SSCSBAW56S6 /SSCSBAV70S6/ SSCSBAV99S6

## Fast Switching Diode

### ● Features

- ✧ Fast Switching Speed
- ✧ Ultra-Small Surface Mount Package
- ✧ Low Reverse Leakage Current
- ✧ Ideal for Battery Powered Portable Applications
- ✧ RoHS Compliant/Green EMC
- ✧ Moisture Sensitivity: Level 3 per J-STD-020

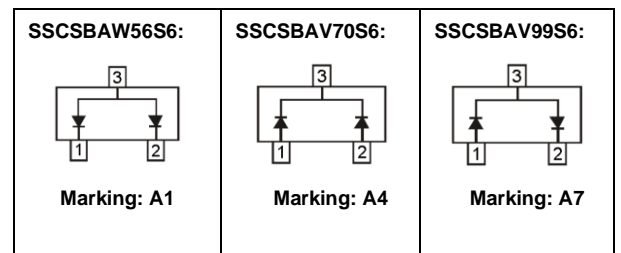
### ● PIN configuration



**SOT-23**

### ✧ Applications

- ✧ High speed switching for detection
- ✧ Battery Powered Portable
- ✧ Mobile phones, laptops and other electronic devices



**Circuit Diagram**

### ● Absolute maximum rating @T<sub>A</sub>=25°C

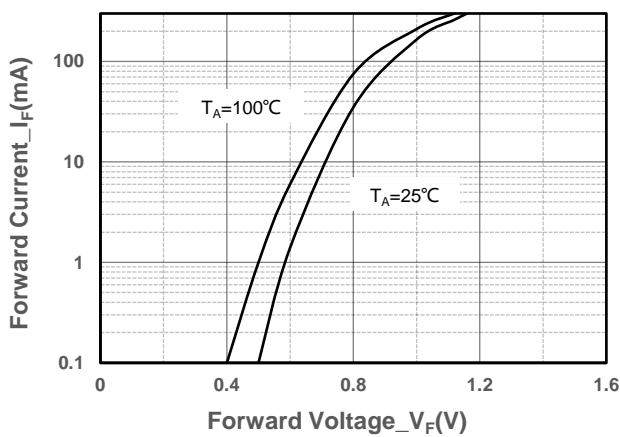
Parameter	Symbol	Value	Unit
Reverse Voltage (DC)	V <sub>R</sub>	70	V
Average Rectified Forward Current	I <sub>FM</sub>	200	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I <sub>FSM</sub>	2.0	A
Power Dissipation	P <sub>D</sub>	225	mW
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	556	°C/W
Junction Temperature	T <sub>J</sub>	125	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C



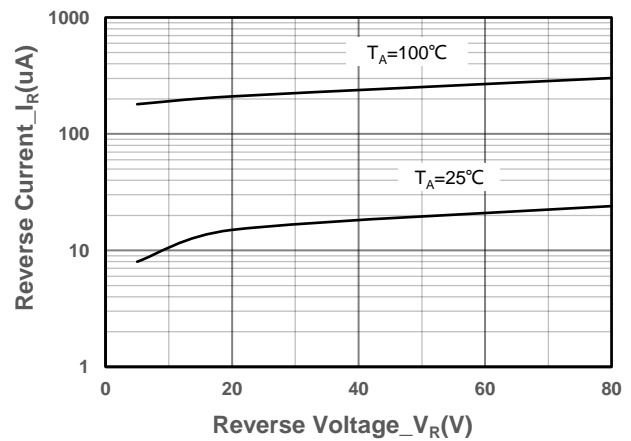
● **Electrical Characteristics @T<sub>A</sub>=25°C**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> = 100uA	70			V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 1mA			0.715	V
		I <sub>F</sub> = 10mA			0.855	V
		I <sub>F</sub> = 50mA			1	V
		I <sub>F</sub> = 150mA			1.25	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 70V			2.5	μA
Capacitance between terminals	C <sub>T</sub>	V <sub>R</sub> = 0V, f = 1MHz			1.5	pF
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> =0.1I <sub>R</sub>			6	ns

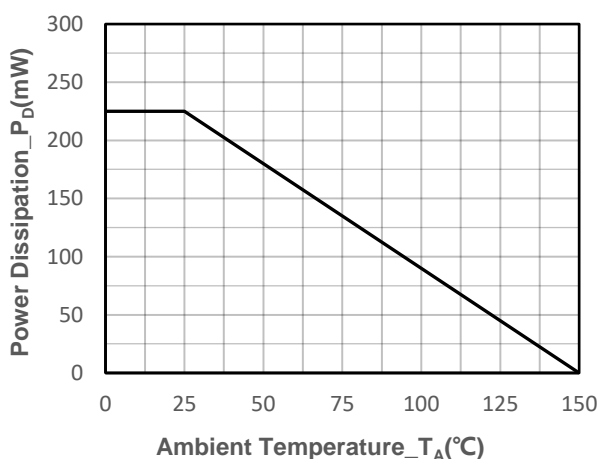
● **Typical Performance Characteristics**



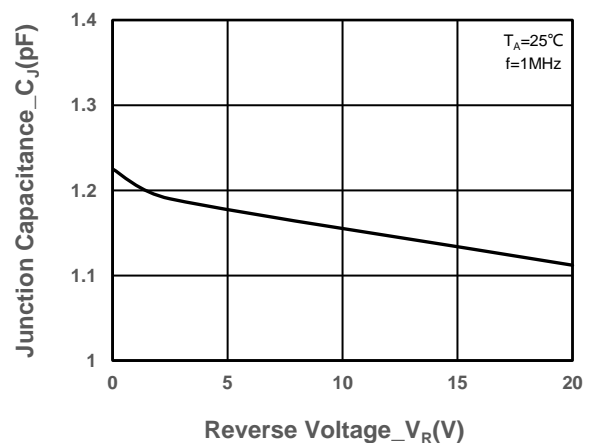
**Forward Current vs. Forward Voltage**



**Reverse Current vs. Reverse Voltage**



**Power Derating vs. Ambient Temperature**



**Junction Capacitance vs. Reverse Voltage**



● Package Information

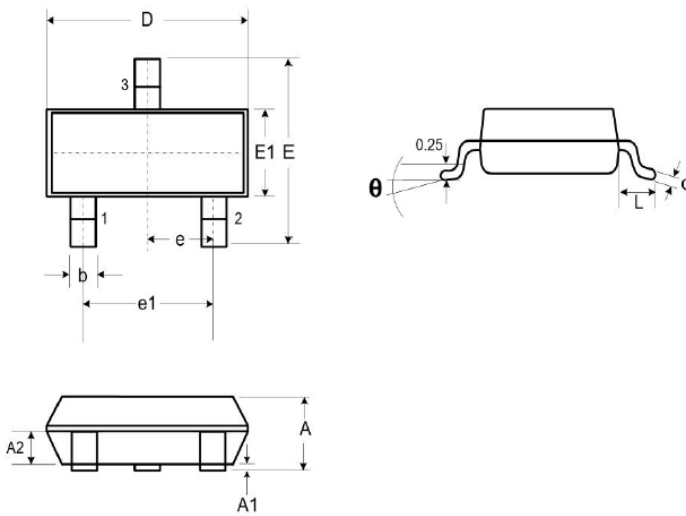
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCSBAW56S6	SOT-23	A1	3000	7 Inch
SSCSBAV70S6	SOT-23	A4	3000	7 Inch
SSCSBAV99S6	SOT-23	A7	3000	7 Inch

Mechanical Data

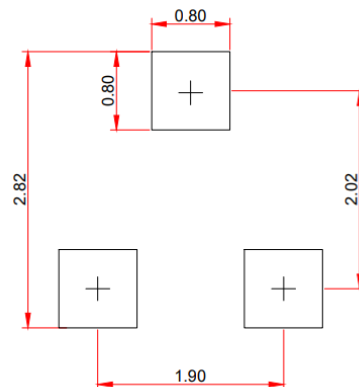
Case: SOT-23

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters		
	Min.	Typ.	Max.
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.51
c	0.08	-	0.18
D	2.80	2.90	3.04
E	2.10	2.37	2.64
E1	1.20	1.30	1.40
e	1.90		
e1	0.95		
L	0.40	0.50	0.60
L1	0.55		
N	3		
θ	0°	-	8°

Recommended Pad outline (Unit: mm)





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