

## SSCSBAV99S7

### Fast Switching Diode

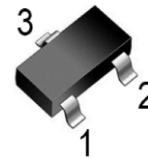
- **Features**

- ✧ 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

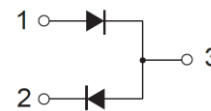
- ✧ **Applications**

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

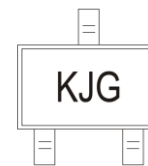
- **PIN configuration**



**SOT-323**



**Circuit Diagram**



**Marking**

- **Absolute maximum rating @T<sub>A</sub>=25°C**

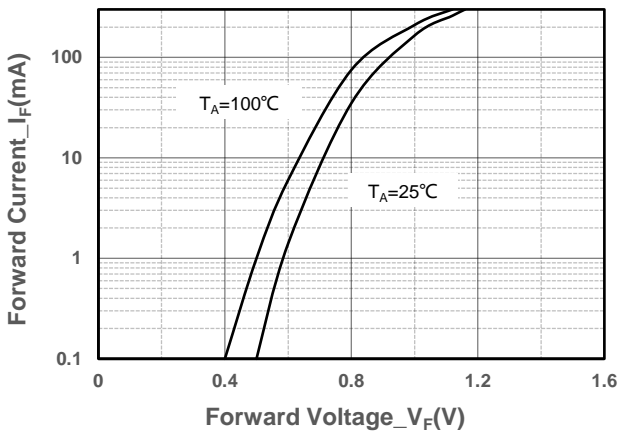
Parameter	Symbol	Value	Unit
Reverse Voltage(DC)	V <sub>R</sub>	70	V
Average Rectified Forward Current	I <sub>FM</sub>	150	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I <sub>FSM</sub>	2.0	A
Power Dissipation	P <sub>D</sub>	225	mW
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	625	°C/W
Junction Temperature	T <sub>J</sub>	125	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C



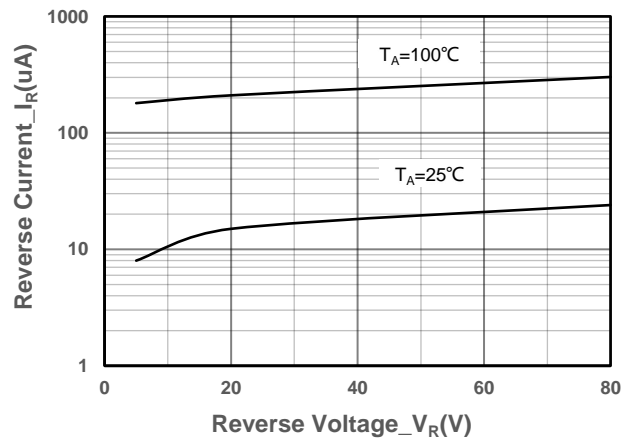
● **Electrical Characteristics @T<sub>A</sub>=25°C**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> = 100uA	75			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> = 25V			25	nA
		V <sub>R</sub> = 75V			2.5	μA
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> = 0V, f = 1MHz			2	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>			4	ns

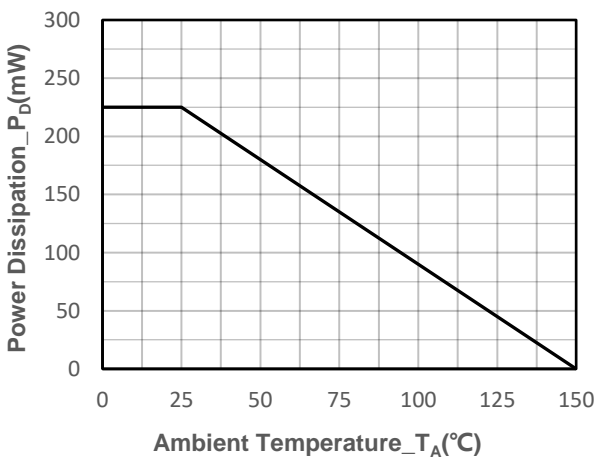
● **Typical Performance Characteristics**



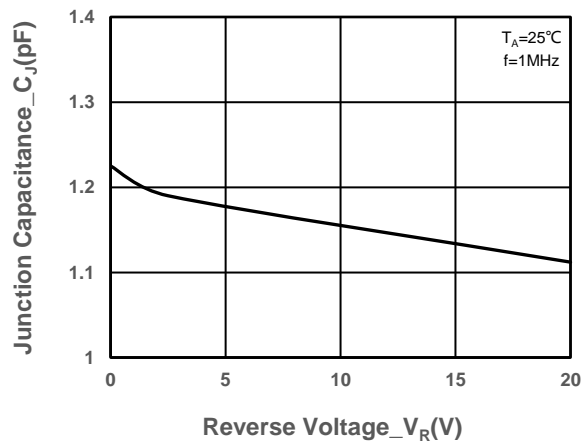
**Forward Current vs. Forward Voltage**



**Reverse Current vs. Reverse Voltage**



**Power Derating vs. Ambient Temperature**



**Junction Capacitance vs. Reverse Voltage**

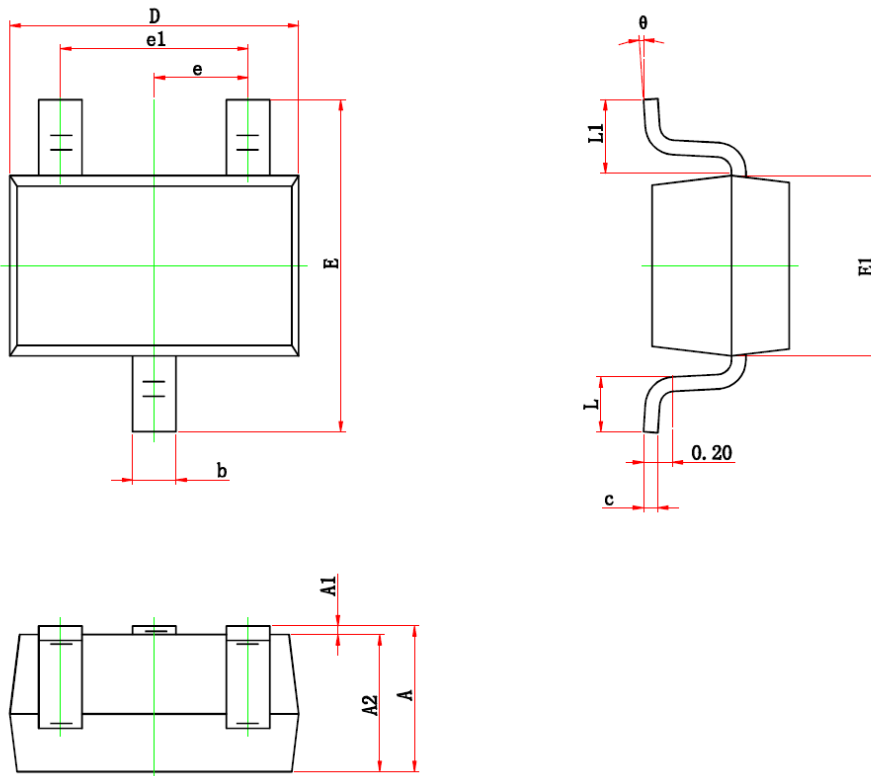


● **Package Information**

**Ordering Information**

Device	Package	Marking	Qty per Reel	Reel Size
SSCSBAV99S7	SOT-323	KJG	3000	7 Inch

**Mechanical Data**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	2.150	2.450	0.085	0.096
E1	1.150	1.350	0.045	0.053
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.260	0.460	0.010	0.018
L1	0.525 REF.		0.021 REF.	
θ	0°	8°	0°	8°



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