



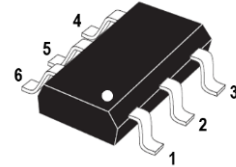
SSCSBAV99SG

Fast Switching Diode

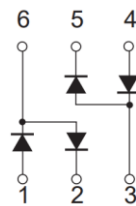
● Features

- ✧ 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



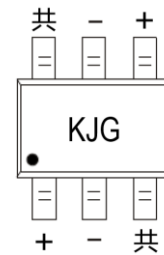
SOT-363



Circuit Diagram

● Applications

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



Marking

● Absolute maximum rating ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

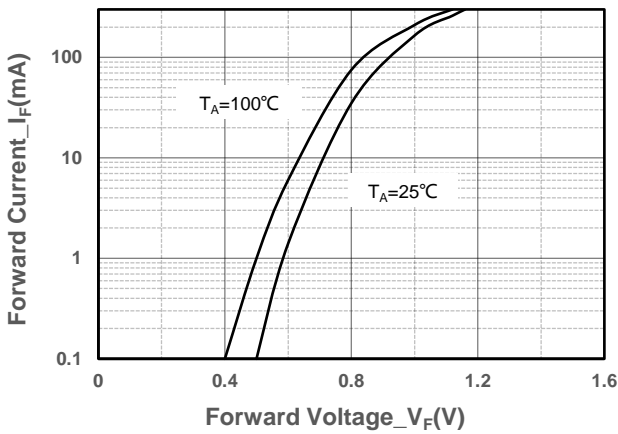
Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Average Rectified Output Current	I_o	150	mA
Forward Continuous Current	I_{FM}	300	mA
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	2.0	A
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	125	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$



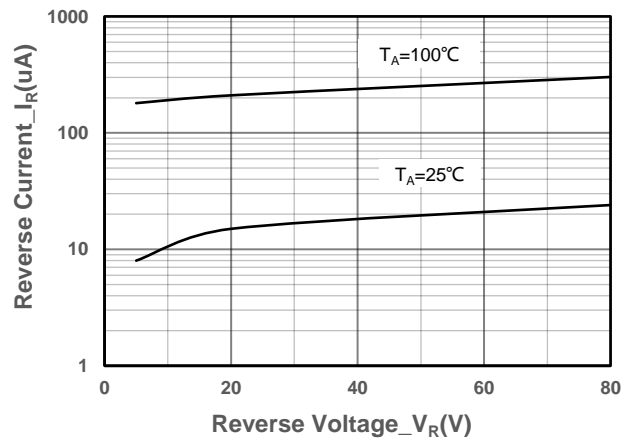
● **Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V_R	$I_R = 2.5\mu\text{A}$	75			V
Forward Voltage	V_F	$I_F = 1\text{mA}$			0.715	V
		$I_F = 10\text{mA}$			0.855	V
		$I_F = 50\text{mA}$			1	V
		$I_F = 150\text{mA}$			1.25	V
Reverse Current	I_R	$V_R = 25\text{V}$			25	nA
		$V_R = 75\text{V}$			2.5	μA
Junction Capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$			2	pF
Reverse recovery time	t_{rr}	$I_F=I_R=10\text{mA}, R_L=100\Omega, I_{rr}=0.1I_R$			4	ns

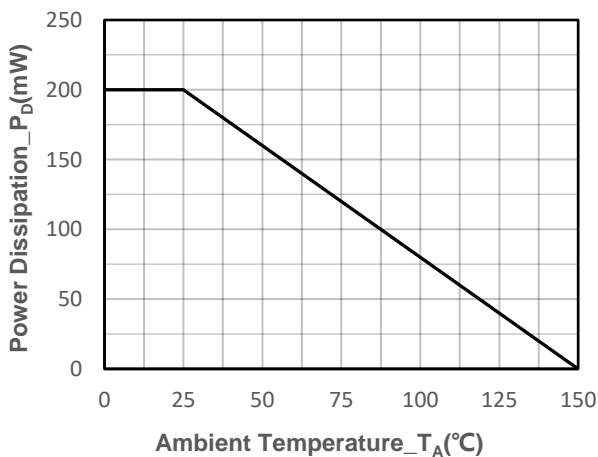
● **Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)**



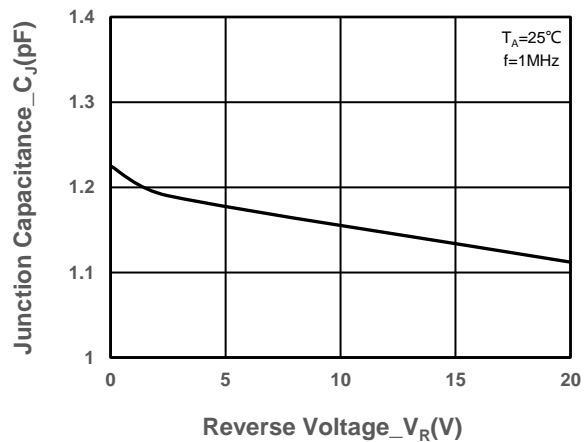
Forward Current vs. Forward Voltage



Reverse Current vs. Reverse Voltage



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage



● **Package Information**

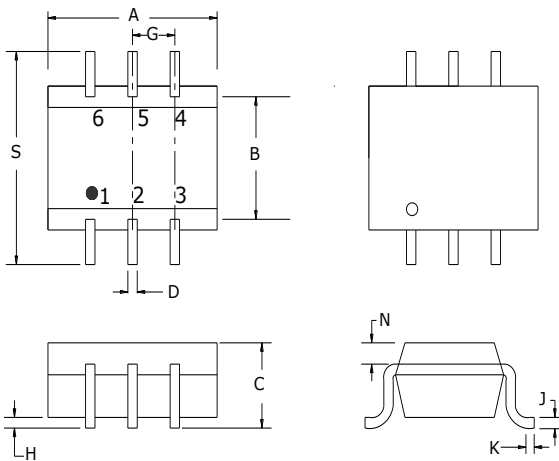
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCSBAV99SG	SOT-363	KJG	3000	7 Inch

Mechanical Data

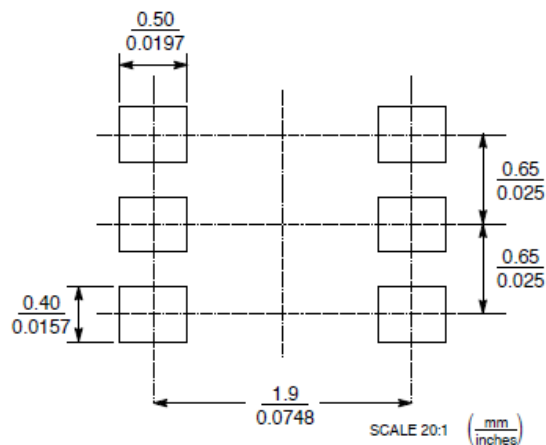
Case: SOT-363

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters		
	Min	Nom	Max
A	1.90	2.00	2.20
B	1.15	-	1.35
C	0.90	-	1.10
D	0.15	-	0.35
G	0.65BSC		
H	-	-	0.10
J	0.08	-	0.15
K	0.15	-	0.35
S	2.10	-	2.45
N	0.20REF		

Recommended Pad outline





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