

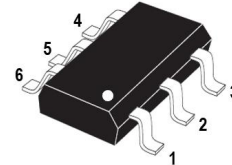
SSCSBAV99SG

Fast Switching Diode

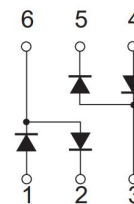
● Features

- ✧ 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



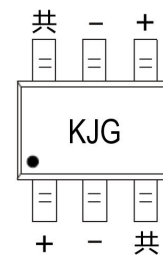
SOT-363



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)

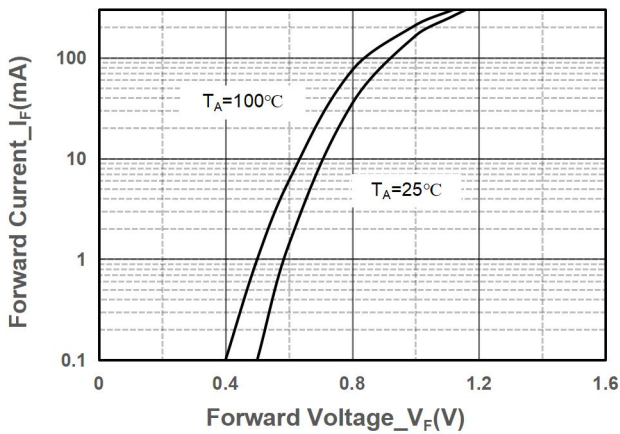
| Parameter | Symbol | Value | Unit |
|--|-----------------|------------|-----------------------------|
| Peak Repetitive Peak Reverse Voltage | V_{RRM} | | |
| Working Peak Reverse Voltage | V_{RWM} | 75 | V |
| DC Blocking Voltage | V_R | | |
| Average Rectified Output Current | I_O | 150 | mA |
| 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 | $^{\circ}\text{C}$ |



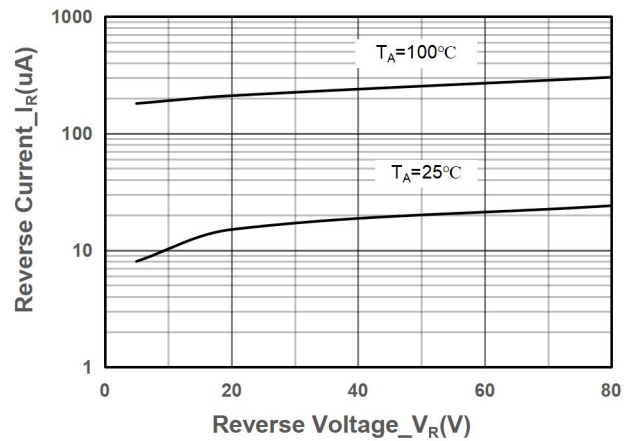
● **Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)**

| 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 |

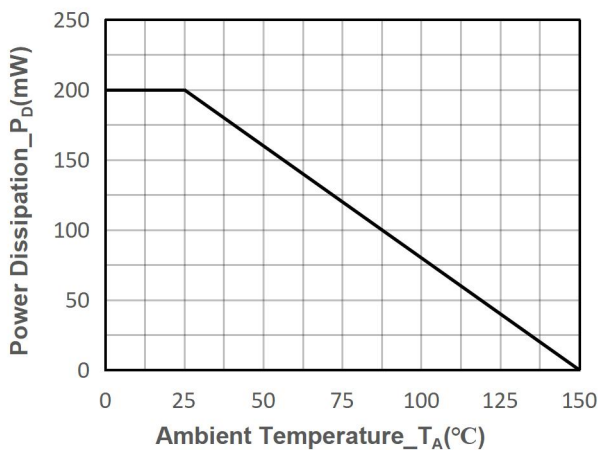
● **Typical Performance Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)**



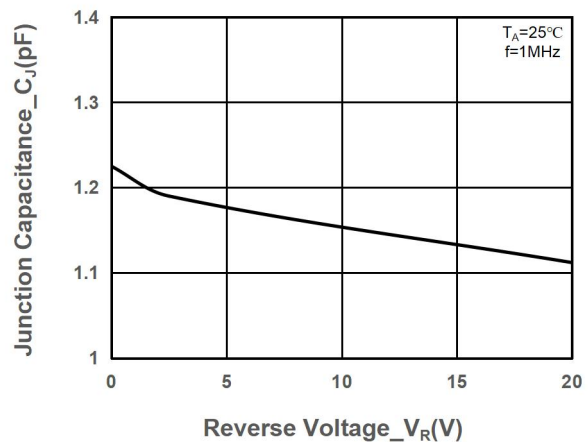
Forward Current vs. Forward Voltage



Reverse Current vs. Reverse Voltage



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage



● Package Information

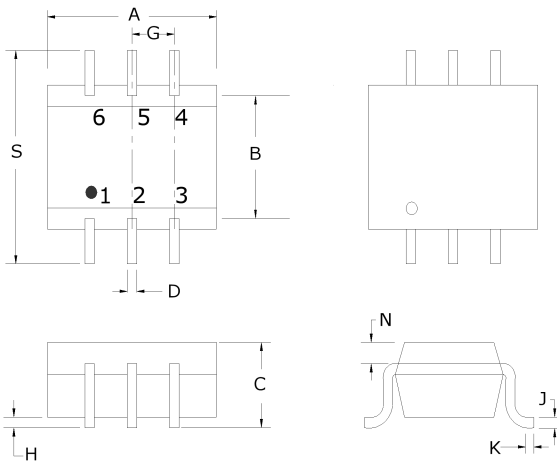
Ordering Information

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

Mechanical Data

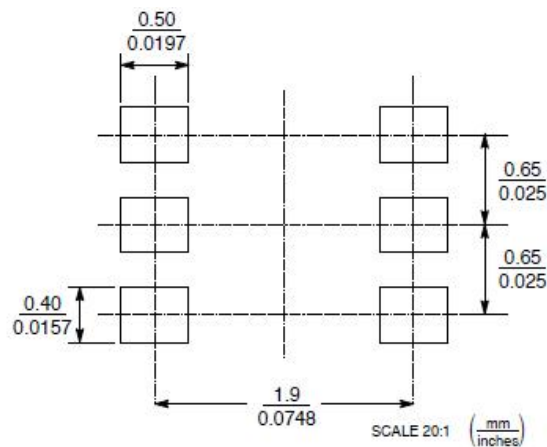
Case: SOT-363

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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