



Features

Fast Switching Speed.

High Conductance.

For General Purpose Switching Applications.

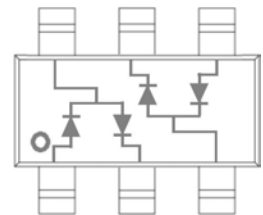
Surface Mount Package Ideally Suited for Automatic Insertion.



SOT-363

Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|------------|---------|---------|----------|
| BAV99S,115 | SOT-363 | K1 | 3000 |



Pin 1

Maxmim Ratings (Ta=25 unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|-----------------|---|----------|------|
| V_R | Reverse Voltage | 75 | V |
| V_{RRM} | Reverse Voltage | 85 | V |
| I_F | Forward Current | 150 | mA |
| I_{FRM} | Repetitive Peak Forward Current | 0.45 | A |
| I_{FSM} | Non-repetitive Peak Forward Surge Current@8.3mS | 2.5 | A |
| P_d | Power Dissipation | 200 | mW |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient | 625 | °C/W |
| T_J | Operation Junction Temperature Range | -40~+150 | °C |
| T_{STG} | Storage Temperature Range | -55~+150 | °C |

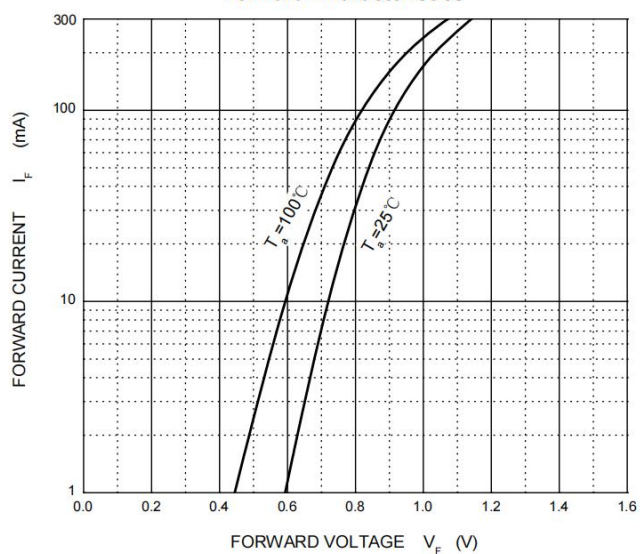
Electrcal Charcteristics (Ta=25 unless otherwise noted)

| Symbol | Parameter | Test conditions | Min | Max | Unit |
|------------|-------------------------------|--|-----|-------|---------|
| $V_{(BR)}$ | Reverse breakdown voltage | $I_R=100\mu A$ | 70 | | V |
| I_R | Reverse current | $V_R=75V$ | | 1 | μA |
| V_F | Forward voltage | $I_F=1mA$ | | 0.715 | V |
| | | $I_F=10mA$ | | 0.855 | V |
| | | $I_F=50mA$ | | 1 | V |
| | | $I_F=150mA$ | | 1.25 | V |
| C_T | Capacitance between terminals | $V_R=0V, f=1MHz$ | | 1.5 | pF |
| t_{rr} | Reverse recovery time | $I_F=I_R=10mA, I_{rr}=0.1I_R, R_L=100\Omega$ | | 6 | nS |

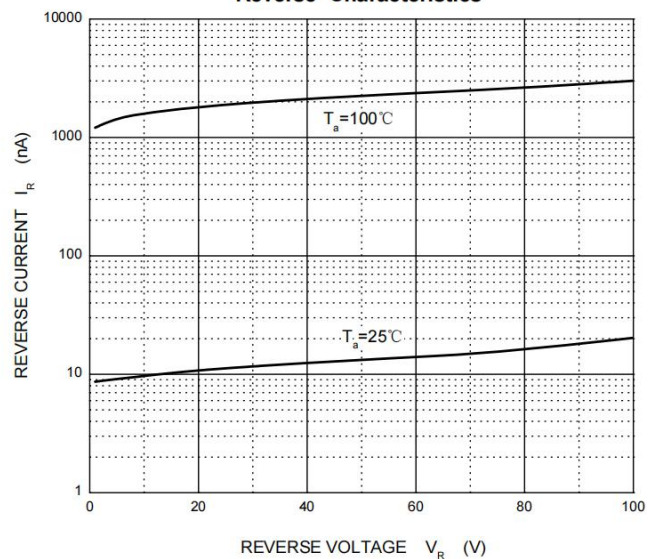


Typical Characteristics

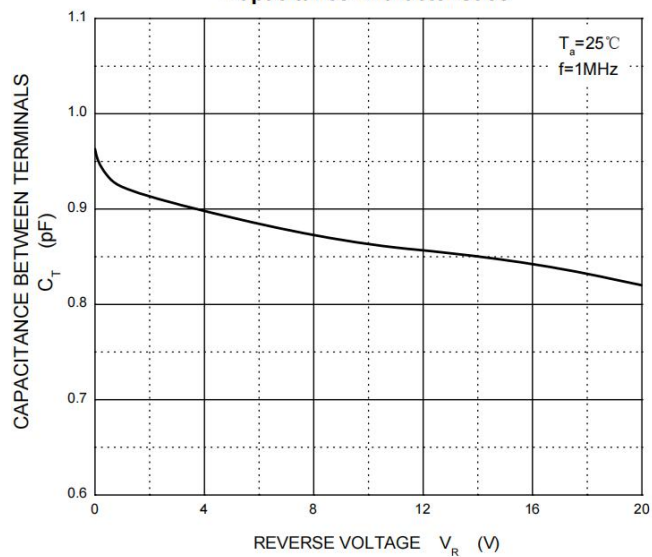
Forward Characteristics



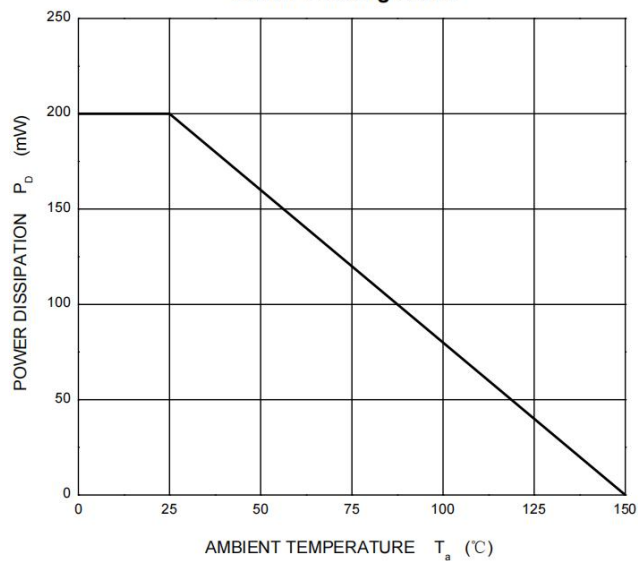
Reverse Characteristics



Capacitance Characteristics

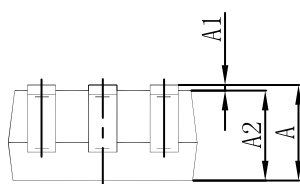
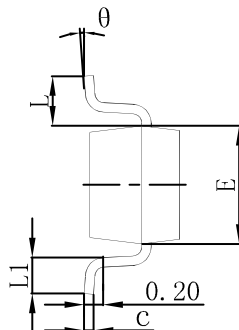
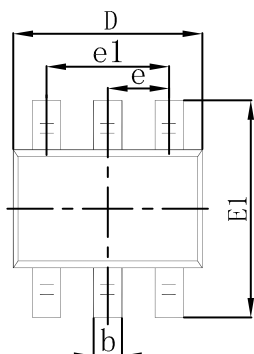


Power Derating Curve



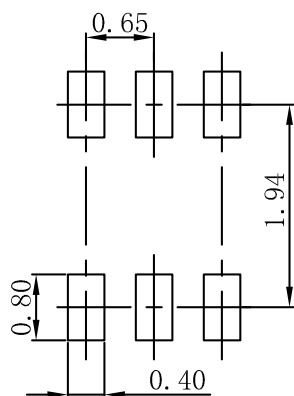


SOT-363 Package Outline Dimensions



| 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 | 0.150 | 0.350 | 0.006 | 0.014 |
| c | 0.100 | 0.150 | 0.004 | 0.006 |
| D | 2.000 | 2.200 | 0.079 | 0.087 |
| E | 1.150 | 1.350 | 0.045 | 0.053 |
| E1 | 2.150 | 2.400 | 0.085 | 0.094 |
| e | 0.650 TYP | | 0.026 TYP | |
| e1 | 1.200 | 1.400 | 0.047 | 0.055 |
| L | 0.525 REF | | 0.021 REF | |
| L1 | 0.260 | 0.460 | 0.010 | 0.018 |
| theta | 0° | 8° | 0° | 8° |

SOT-363 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.



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