



FEATURES

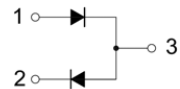
- Average Rectified Output Current: $I_O=200\text{ mA}$
- Power Dissipation of 225mw



SOT-23

Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|------------|--------|---------|----------|
| BAS21S | SOT-23 | JS4 | 3000 |



MAXIMUM RATINGS (Ta=25 unless otherwise noted)

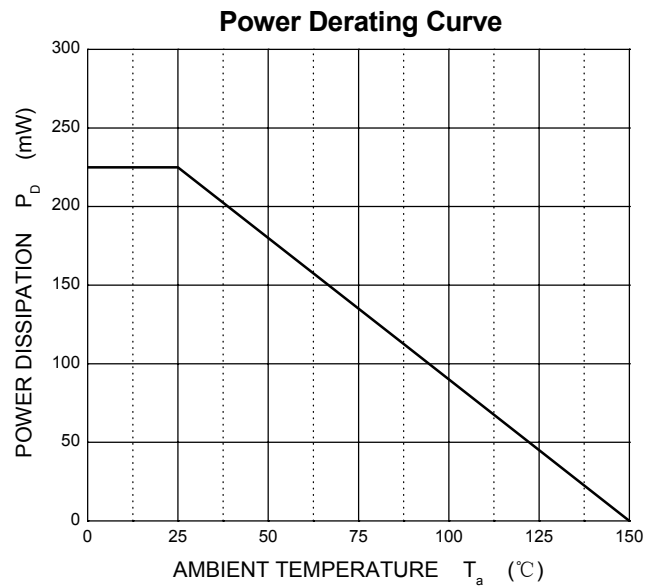
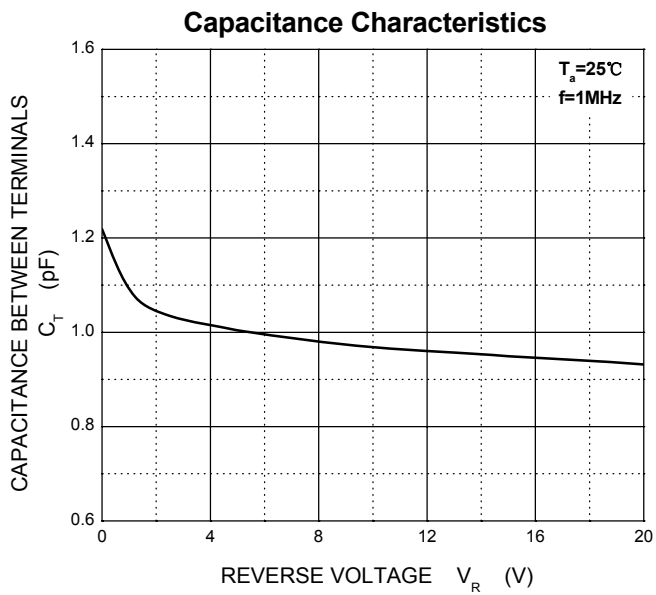
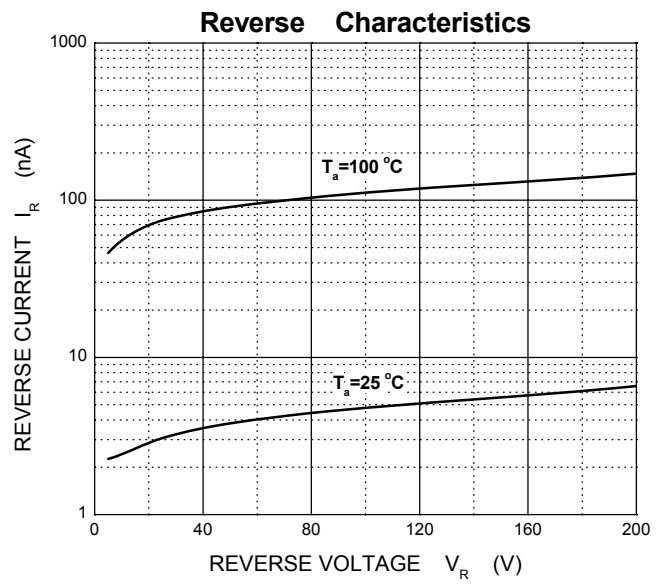
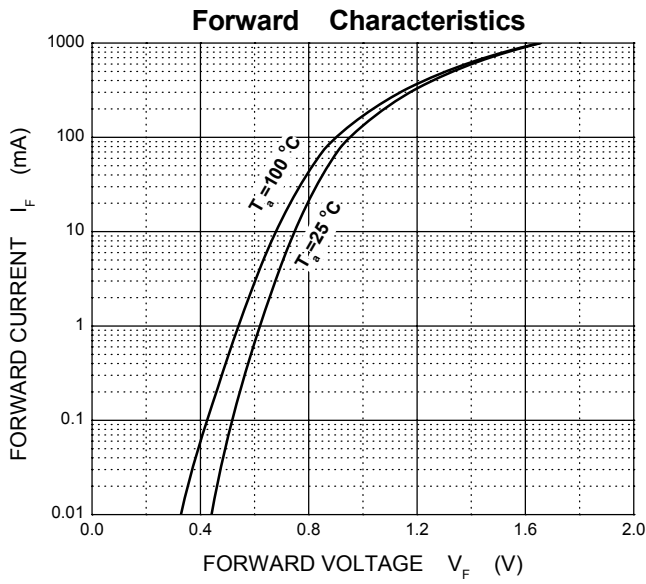
| Parameter | Symbol | Limit | Unit |
|---|-----------------|----------|------|
| Repetitive peak reverse voltage | V_{RRM} | 250 | V |
| Working peak reverse voltage | V_{RWM} | | |
| DC blocking voltage | V_R | | |
| Forward continuous current | I_{FM} | 400 | mA |
| Average rectified output current | I_O | 200 | mA |
| Non-Repetitive Peak Forward Surge Current @ t=8.3ms | I_{FSM} | 2.5 | A |
| Repetitive peak forward surge current | I_{FRM} | 625 | mA |
| Power dissipation | P_D | 225 | mW |
| Thermal resistance junction to ambient | $R_{\theta JA}$ | 555 | °C/W |
| Junction temperature | T_J | 150 | °C |
| Storage temperature range | T_{STG} | -55~+150 | °C |

ELECTRICAL CHARACTERISTICS (Ta=25 unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Max | Unit |
|---------------------------------|------------|--|-----|--------------|---------|
| Reverse breakdown voltage | $V_{(BR)}$ | $I_R=100\mu A$ | 250 | | V |
| Reverse voltage leakage current | I_R | $V_R=200V$ | | 0.1 | μA |
| Forward voltage | V_F | $I_F=100mA$ $I_F=200mA$ | | 1000 1250 | mV |
| Diode capacitance | C_D | $V_R=0V, f=1MHz$ | | 5 | pF |
| Reveres recovery time | t_{rr} | $I_F=I_R=30mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$ | | 50 | ns |



Typical Characteristics



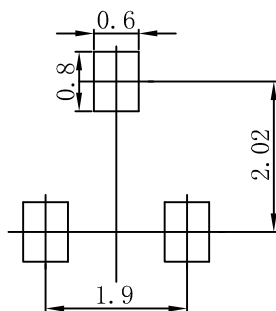


SOT-23 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.900 | 1.150 | 0.035 | 0.045 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| E | 1.200 | 1.400 | 0.047 | 0.055 |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 |
| e | 0.950 TYP | | 0.037 TYP | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.550 REF | | 0.022 REF | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0° | 8° | 0° | 8° |

SOT-23 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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