

SOT-23
ROHS
COMPLIANT

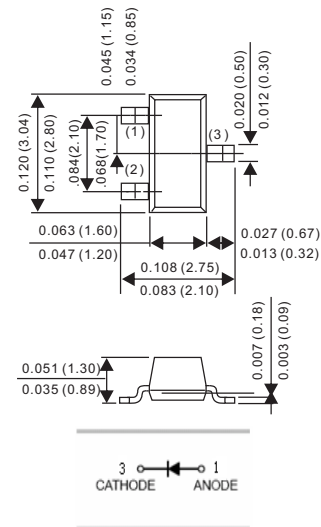
Pb
Pb-Free

FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications
- High conductance

APPLICATIONS

- High speed switching application



Dimensions in inches and (millimeters)

ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| BAS19 | JP | SOT-23 |
| BAS20 | JR | SOT-23 |
| BAS21 | JS | SOT-23 |

MAXIMUM RATING @ Ta=25°C unless otherwise specified

| Characteristic | Symbol | BAS19 | BAS20 | BAS21 | Unit |
|--|--------------------|-------------|-------|-------|------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 120 | 200 | 250 | V |
| Working Peak Reverse Voltage DC Reverse Voltage | V_{RWM} V_R | 100 | 150 | 200 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 71 | 106 | 141 | V |
| Average rectified output Current | I_O | 200 | | | mA |
| Non-Repetitive Peak Forward Surge Current | I_{FSM} | | | | A |
| @t=1.0μs | | | | | |
| @t=1.0s | 0.5 | | | | |
| Repetitive Peak Forward Surge Current | I_{FRM} | 625 | | | |
| Power Dissipation | P_D | 250 | | | mW |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | 500 | | | °C/W |
| Operating Junction Temperature Range | T_J | 150 | | | °C |
| Storage Temperature Range | T_{STG} | -65 to +150 | | | °C |



ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Characteristic | Symbol | Min | MAX | UNIT | Test Condition |
|---------------------------|-------------------------|-------------------|-------------------------------------|---------|---|
| Reverse breakdown voltage | BAS19 BAS20 BAS21 | 120 200 250 | | V | $I_R=100\mu A$ |
| Forward Voltage | V_F | - | 1.0 1.25 | V | $I_F=100mA$ $I_F=200mA$ |
| Reverse Leakage Current | BAS19 BAS20 BAS21 | - | 0.1 15 0.1 15 0.1 15 | μA | $V_R=100V$ $V_R=100V, T_j=100^\circ C$ $V_R=150V$ $V_R=150V, T_j=100^\circ C$ $V_R=200V$ $V_R=200V, T_j=100^\circ C$ |
| Junction Capacitance | C_j | - | 5.0 | pF | $V_R=0V, f=1.0MHz$ |
| Reverse Recovery Time | t_{rr} | - | 50 | ns | $I_F=I_R=30mA, I_{rr}=0.1 \cdot I_R$ |

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

