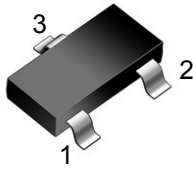


SOT-23



Features

- Fast Switching Device (TRR <50nS)
- High Stability and High Reliability
- Low reverse leakage
- Halogen free and RoHS compliant

Mechanical Data

SOT-23 Small Outline Plastic Package
EpoxyUL:94V-0

MARKING:

| | | | |
|--------------------|--------------------|--------------------|--------------------|
| BAS21 | BAS21A | BAS21C | BAS21S |
| | | | |
| MARKING: JS | MARKING:JS2 | MARKING:JS3 | MARKING:JS4 |
| | | | |

Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| SOT-23 | Tape/Reel,7" reel | 3000 | EIA-481-1 |

Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

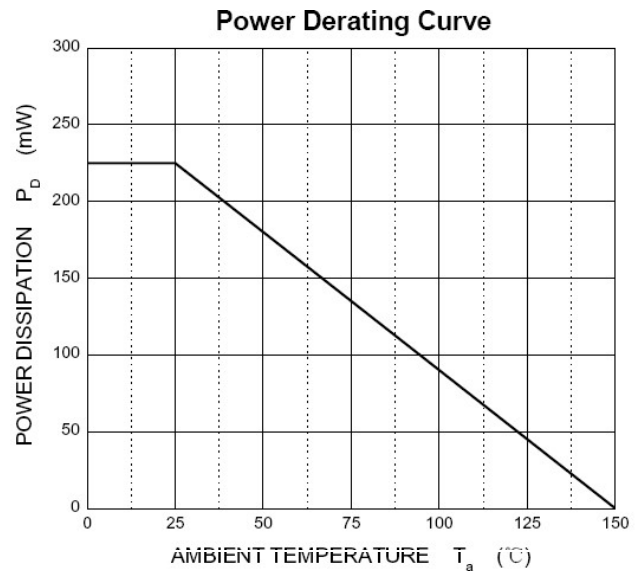
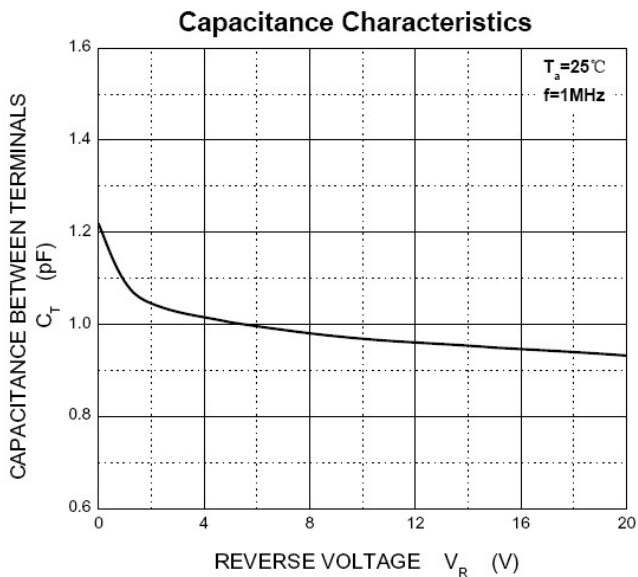
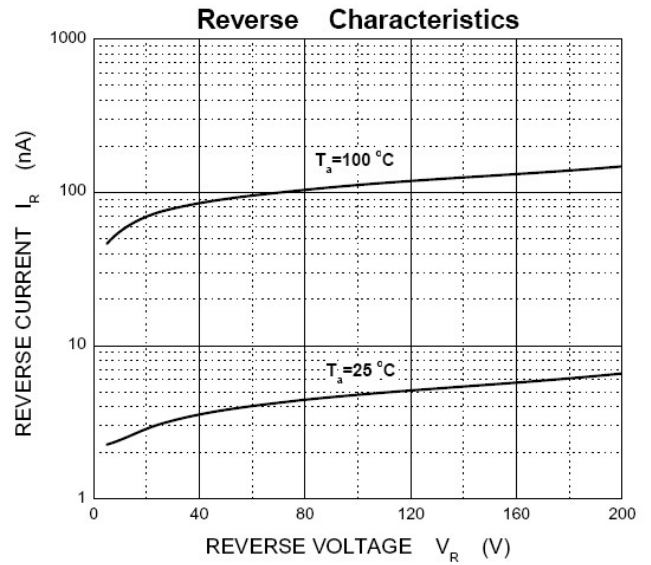
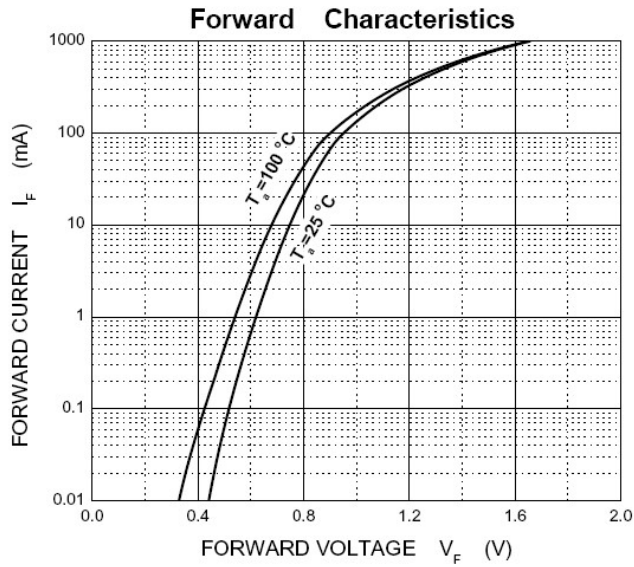
| Parameters | Symbol | Value | Unit |
|---|------------------|----------|------|
| Reverse Voltage | V _R | 250 | V |
| Peak Repetitive Reverse Voltage | V _{RRM} | 250 | V |
| Power Dissipation | P _d | 225 | mW |
| Forward continuous Current | I _{FM} | 400 | mA |
| Repetitive peak forward surge current | I _{FRM} | 625 | mA |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms; TA=25°C | I _{FSM} | 2.5 | A |
| Operating junction temperature | T _j | 150 | °C |
| Storage temperature range | T _s | -55-+150 | °C |
| Thermal Resistance from Junction to Ambient | R _{θJA} | 555 | °C/W |

Electrical Characteristics

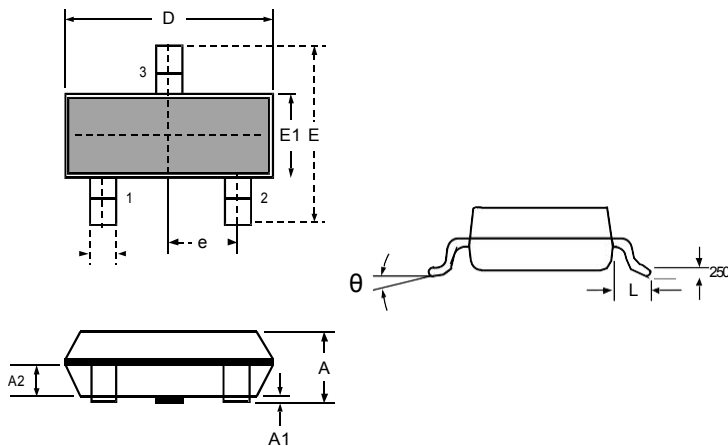
(Ratings at 25°C ambient temperature unless otherwise specified).

| Symbols | Parameter | Test Condition | Limits | | Unit |
|----------------|-------------------------|----------------|--------|------|------|
| | | | Min | Max | |
| V(BR) | Reverse Voltage | IR=100uA | 250 | | V |
| I _R | Reverse Leakage Current | VR=200V | --- | 0.1 | uA |
| V _F | Forward Voltage | IF=100mA | --- | 1.00 | V |
| | | IF=200mA | --- | 1.25 | |
| TRR | Reverse Recovery Time | IF= IR=30mA | --- | 50 | nS |
| | | RL=100Ω | | | |
| | | IRR=0.1 X IR | | | |
| CT | Capacitance | VR=0V, f=1MHZ | --- | 5 | pF |

Ratings and Characteristic Curves



Package Outline Dimensions: SOT-23



DIMENSIONS

| SYMBOL | MILLIMETER | | 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 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| E | 2.250 | 2.550 | 0.089 | 0.100 |
| E1 | 1.200 | 1.400 | 0.047 | 0.055 |
| e | 0.950 BSC | | 0.037 BSC | |
| L | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0 | 8 $^\circ$ | 0 | 8 $^\circ$ |