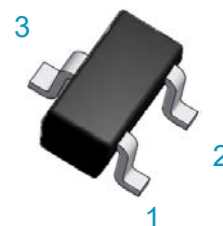


## Features

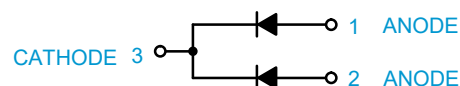
- Low Forward Voltage
- Fast Speed Switching
- Surface Device Type Mounting
- SMD Package
- RoHS Compliant

## Applications

- High Speed Switching Circuits
- Portable Applications i.e. PDA, Cell Phone, etc.



SOT-23



## Order information

| Device | Marking | Shipping         |
|--------|---------|------------------|
| BAS21C | JU      | 3000/Tape & Reel |

## Absolute Maximum Ratings

| Parameter                                                         | Symbol          | Limits   | Unit |
|-------------------------------------------------------------------|-----------------|----------|------|
| Reverse Voltage                                                   | $V_{RRM}$       | 250      | V    |
| Forward Current                                                   | $I_F$           | 0.2      | A    |
| Forward Surge Current @8.3mS half sine                            | $I_{FSM}$       | 2.5      | A    |
| Storage Temperature                                               | $T_{STG}$       | -55~+150 | °C   |
| Operating Junction Temperature                                    | $T_J, T_{STG}$  | -55~+125 | °C   |
| Lead Temperature for Soldering Purposes (1/8" from case for 10 s) | $T_L$           | 260      | °C   |
| Junction-to-Ambient – Steady State (Note 1)                       | $R_{\theta JA}$ | 350      | °C/W |

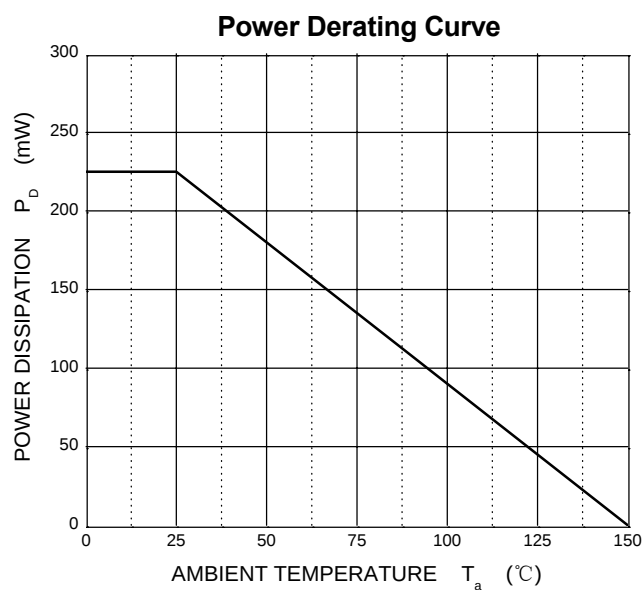
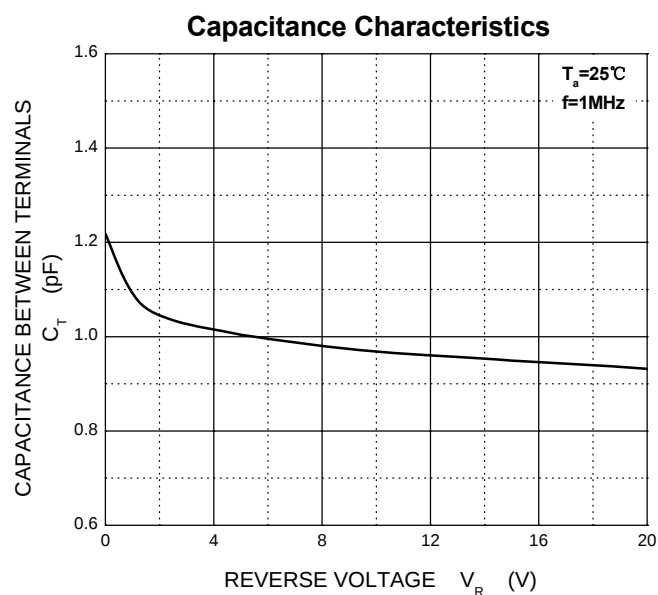
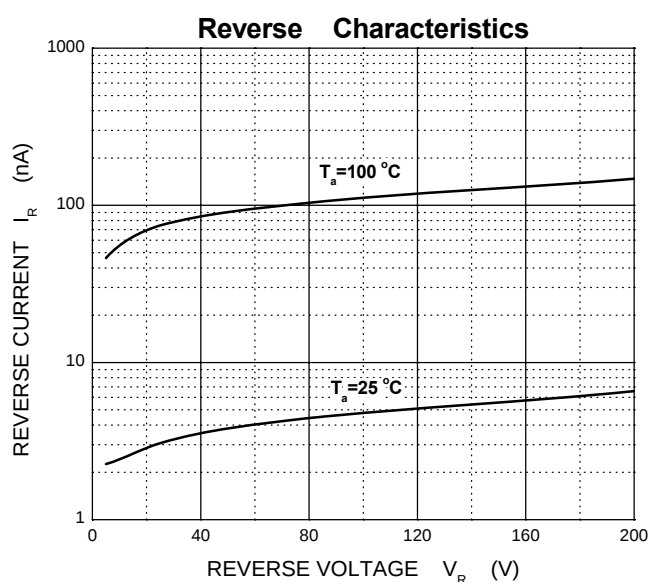
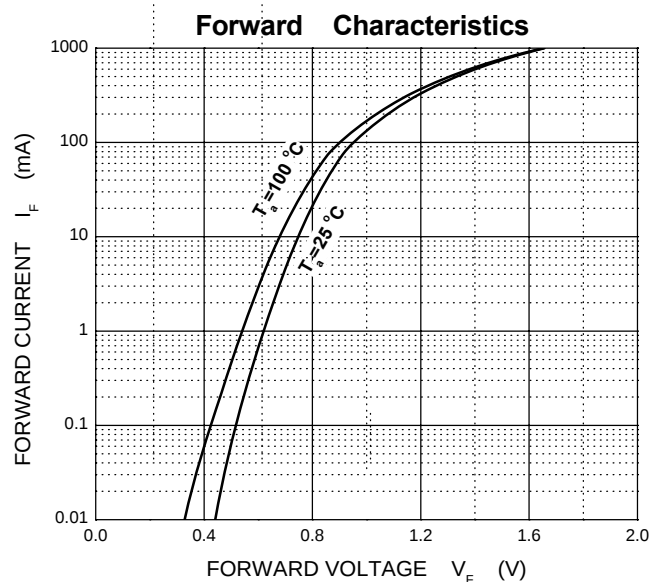
Note 1:

Surface-mounted on FR4 board using 1 inch square pad size (Cu area = 1.127 inch square [1 oz] including traces)

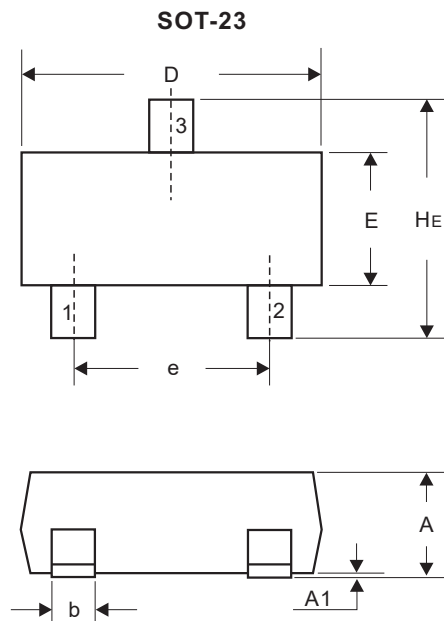
## Electrical Characteristic (Ta= 25°C)

| Characteristic                                    | Symbol   | Min. | Typ. | Max.        | Unit |
|---------------------------------------------------|----------|------|------|-------------|------|
| STATIC CHARACTERISTICS                            |          |      |      |             |      |
| Breakdown Voltage<br>(IR=100μA)                   | $V_{BR}$ | 250  | -    | -           | V    |
| Reverse Leakage Current<br>(VR=200V)              | $I_R$    |      | -    | 0.1         | μA   |
| Forward Voltage<br>(IF=100mA)<br>(IF=200mA)       | $V_F$    |      |      | 1.0<br>1.25 | V    |
| Capacitance between terminals<br>(VR=0V , f=1MHz) | $C_T$    |      | -    | 5           | pF   |
| Reverse recovery time<br>(RL=100ohm,IF=IR=0.03A)  | $T_{rr}$ |      |      | 50          | nS   |

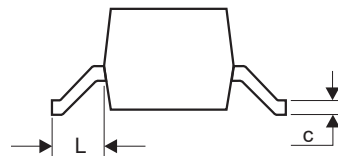
## ELECTRICAL CHARACTERISTICS CURVES



## Outline and Dimensions



| DIM | Millimeters |      | Inches |       |
|-----|-------------|------|--------|-------|
|     | Min         | Max  | Min    | Max   |
| A   | 0.89        | 1.11 | 0.035  | 0.044 |
| A1  | 0.01        | 0.10 | 0.001  | 0.004 |
| b   | 0.37        | 0.50 | 0.015  | 0.020 |
| c   | 0.09        | 0.18 | 0.003  | 0.007 |
| D   | 2.80        | 3.04 | 0.110  | 0.120 |
| E   | 1.20        | 1.40 | 0.047  | 0.055 |
| e   | 1.78        | 2.04 | 0.070  | 0.081 |
| L   | 0.35        | 0.69 | 0.014  | 0.029 |
| HE  | 2.10        | 2.64 | 0.083  | 0.104 |



### Recommended Mounting Pad Layout

