



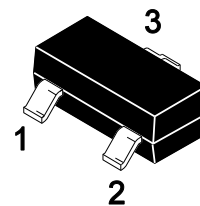
# BAS21 Series

## Silicon Epitaxial Planar Switching Diode

### Features

- High Conductance
- Fast Switching Speed
- For General Purpose Switching Applications

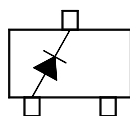
### SOT-23



### Equivalent Circuit

#### BAS21

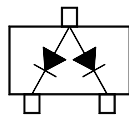
3.Cathode



1.Anode 2.NC

#### BAS21A

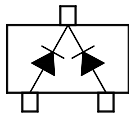
3.Anode1、Anode2



1.Cathode1 2.Cathode2

#### BAS21C

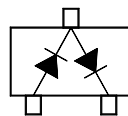
3.Cathode1、Cathode2



1.Anode1 2.Anode2

#### BAS21S

3.Cathode1、Anode2



1.Anode1 2.Cathode2

### Marking Code :

BAS21 : HC

BAS21A : HA

BAS21C : HD

BAS21S : HB

### Absolute Maximum Ratings ( $T_A=25^{\circ}\text{C}$ )

| Parameter                                                     | Symbol          | Value       | Unit                 |
|---------------------------------------------------------------|-----------------|-------------|----------------------|
| Repetitive Peak Reverse Voltage                               | $V_{RRM}$       | 250         | V                    |
| Working Peak Reverse Voltage                                  | $V_{RWM}$       | 250         | V                    |
| DC Blocking Voltage                                           | $V_R$           | 250         | V                    |
| Continuous Forward Current                                    | $I_{FM}$        | 400         | mA                   |
| Average Rectified Output Current                              | $I_O$           | 200         | mA                   |
| Non-repetitive Peak Forward Surge Current at $t=8.3\text{ms}$ | $I_{FSM}$       | 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         | $^{\circ}\text{C/W}$ |
| Junction Temperature                                          | $T_J$           | 150         | $^{\circ}\text{C}$   |
| Storage Temperature Range                                     | $T_{STG}$       | -55 to +150 | $^{\circ}\text{C}$   |



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### Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ )

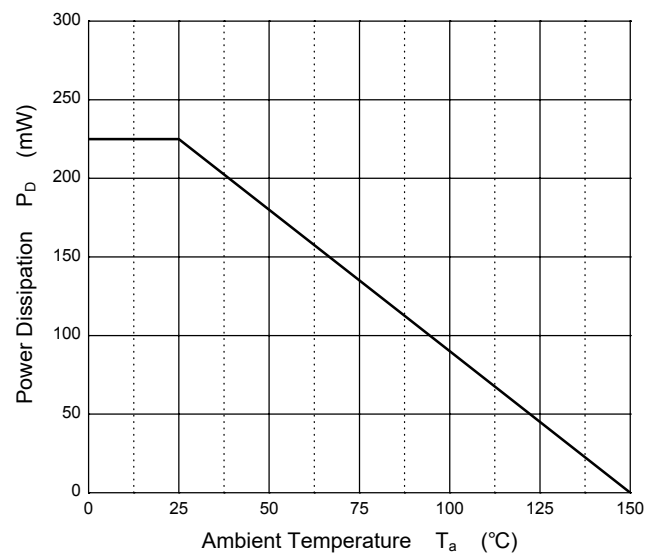
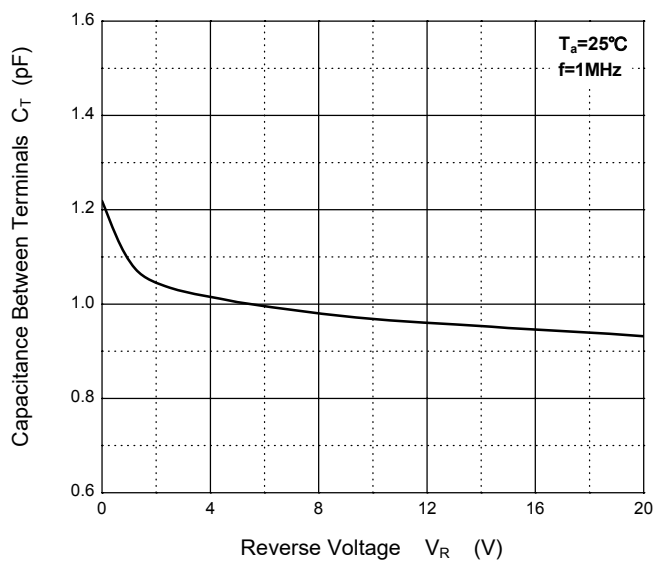
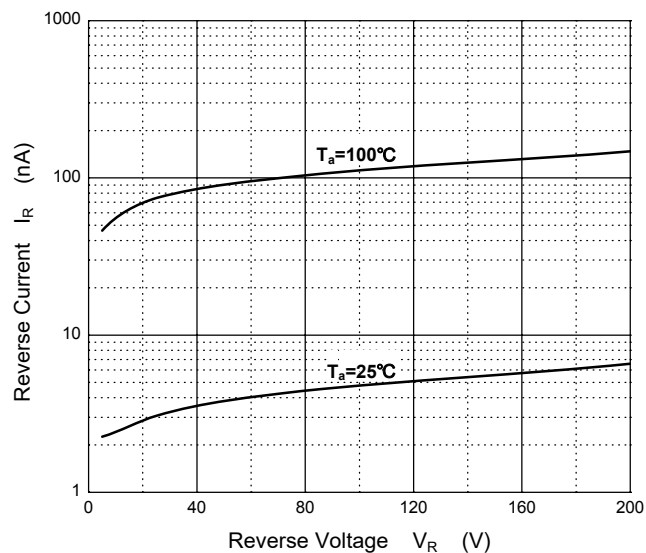
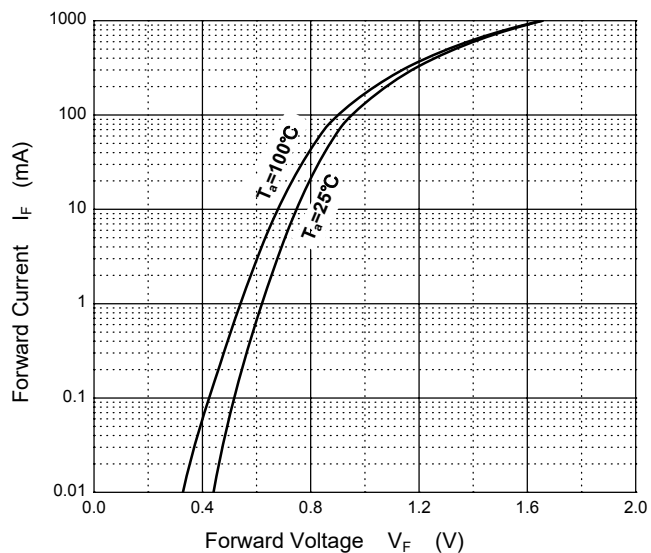
| Parameter                                                                                                          | Symbol      | Min.     | Max.      | Unit          |
|--------------------------------------------------------------------------------------------------------------------|-------------|----------|-----------|---------------|
| Forward Voltage<br>at $I_F=100\text{ mA}$<br>at $I_F=200\text{ mA}$                                                | $V_F$       | --<br>-- | 1<br>1.25 | V             |
| Reverse Breakdown Voltage<br>at $I_R = 100\text{ }\mu\text{A}$                                                     | $V_{(BR)R}$ | 250      | --        | V             |
| Reverse Current<br>at $V_R = 200\text{ V}$                                                                         | $I_R$       | --       | 0.1       | $\mu\text{A}$ |
| Typical Junction Capacitance<br>at $V_R=0\text{ V}$ , $f=1\text{ MHz}$                                             | $C_j$       | --       | 5         | pF            |
| Maximum Reverse Recovery Time<br>at $I_F = I_R= 30\text{ mA}$ , $I_{rr}=0.1\times I_R$ , $R_L = 100\text{ }\Omega$ | $T_{rr}$    | --       | 50        | nS            |



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### Typical Characteristic Curves





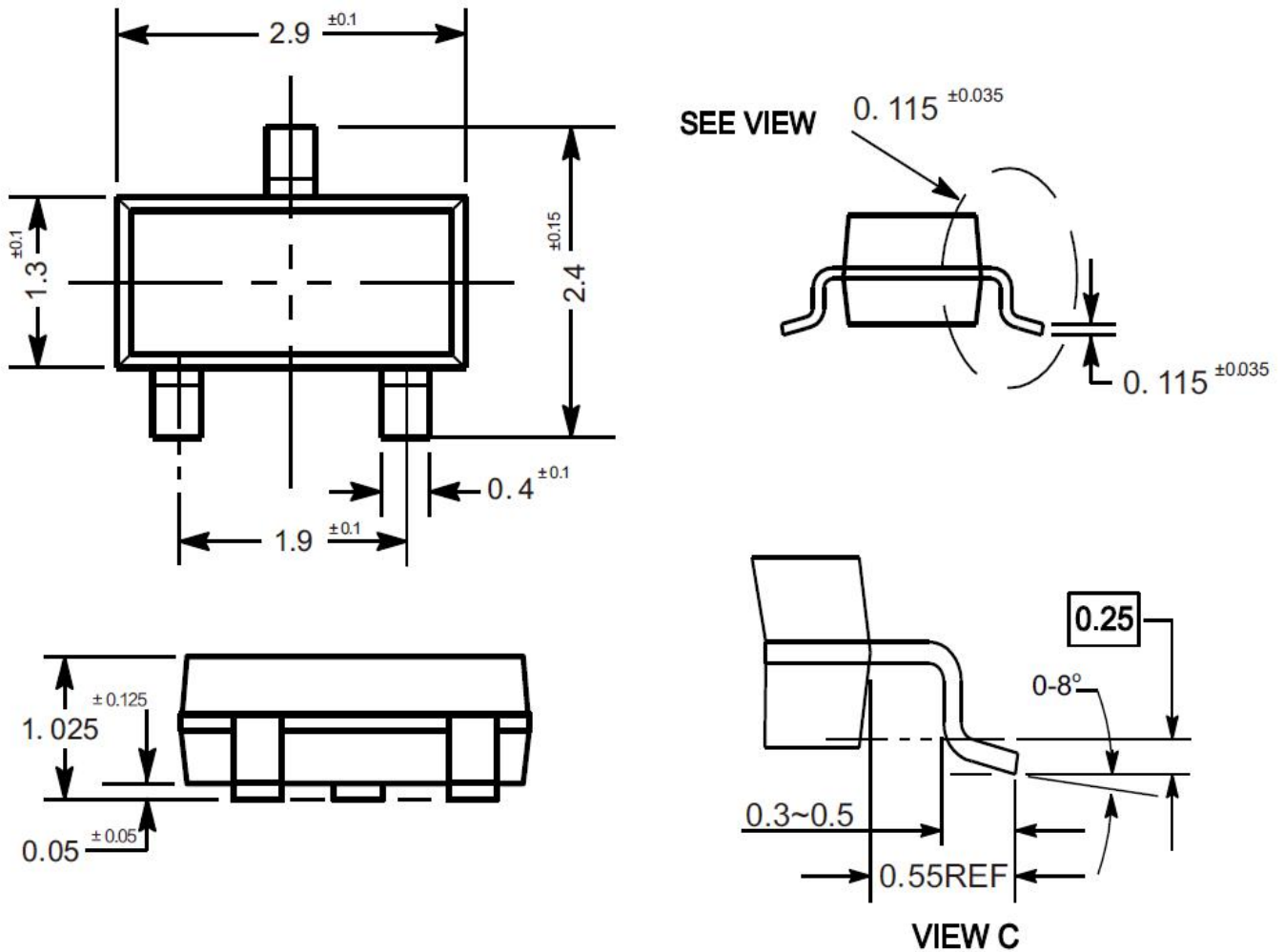
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## Silicon Epitaxial Planar Switching Diode

### Package Outline

SOT-23

Dimensions in mm



### Ordering Information

| Device       | Package | Shipping              |
|--------------|---------|-----------------------|
| BAS21 Series | SOT-23  | 3,000PCS/Reel&7inches |