

# **SOT -23 Plastic-Encapsulate Switching Diode**

#### **Features**

- 50nS; Fast Switching Device (TRR <50 nS)
- 225mW; Power Dissipation of 225mW
- High Stability and High Reliability
- Low reverse leakage
- AEC-Q101 Qualified





SOT-23

### **Mechanical Data**

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

| ABAS21       | ABAS21A     | ABAS21C     | ABAS21S    |  |
|--------------|-------------|-------------|------------|--|
| 1 ∘ → → 3    | 1 0 4 3     | 1 ∘ → → 3   | 1 0 ▶3     |  |
| 20           | 2 ○   ◀     | 2∘ ▶        | 20-        |  |
| Marking : JS | Marking:JS2 | Marking JS3 | MarkingJS4 |  |
|              |             |             |            |  |
| JS           | JS2         | JS3         | JS4        |  |
|              |             |             |            |  |

| Maximum Ratings & Thermal Characteristics (@ T <sub>A</sub> = 25°C unless otherwise specified) |        |          |              |  |
|--|--------|----------|--------------|--|
| Para meters  | Symbol | V alue   | Unit         |  |
| Reverse Voltage  | VR     | 250      | V            |  |
| Peak Repetitive Reverse Voltage  | Vrrm   | 250      | V            |  |
| Power Dissipation  | Pd     | 225      | mW           |  |
| Non-repetitive Peak Forward Current  | Iгм    | 400      | mA           |  |
| Repetitive peak forward surge current  | IFRM   | 625      | mA           |  |
| Non-Repetitive Peak Forward Surge<br>Current @t=8.3ms; TA=25℃                                  | IFSM   | 2.5      | А            |  |
| Operating junction temperature   | TJ     | 150      | $^{\circ}$   |  |
| Storage temperature range  | Ts     | -55-+150 | $^{\circ}$ C |  |
| Thermal Resistance from Junction to Ambient  | Reja   | 555      | °C/W         |  |

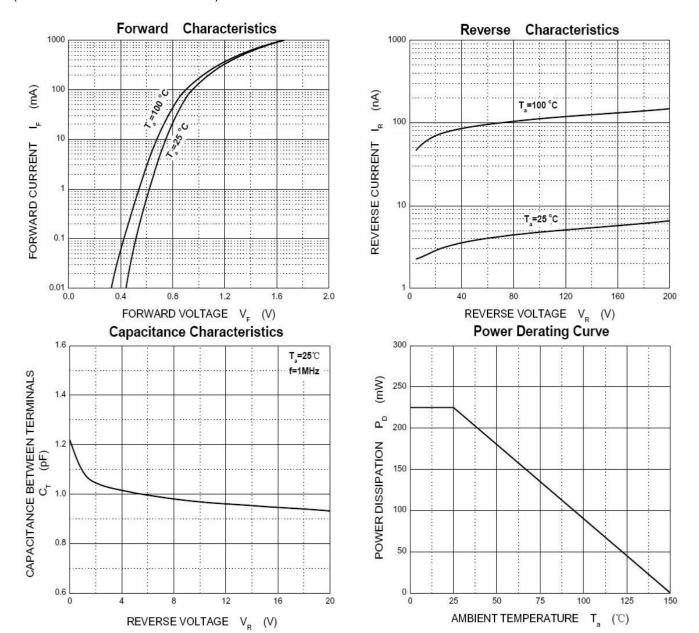
Valid provided that electrodes are kept at ambient temperature.

| Electr ical Characteristics (@ T <sub>A</sub> = 25°C unless otherwise specified) |                |                |        |      |                                       |
|--|----------------|----------------|--------|------|---------------------------------------|
| Parameter  | Symbol         | Test Condition | Limits |      | l limit                               |
| Parameter  |                |                | Min    | Max  | Unit                                  |
| Reverse Voltage  | $V_{BR}$       | IR=100uA       | 250    |      | V                                     |
| Reverse Leakage Current  | I <sub>R</sub> | VR=200V        |        | 0.1  | uA                                    |
| Forward Voltage  |                | IF=100mA       |        | 1.00 | V                                     |
| Forward voltage  | $V_{F}$        | IF=200mA       |        | 1.25 | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
|  |                | IF= IR=30mA    |        |      |                                       |
| Reverse Recovery Time  | $T_RR$         | RL=100Ω        |        | 50   | nS                                    |
|  |                | IRR=0.1 X IR   |        |      |                                       |
| Capaci tance   | Ст             | VR=0V, f=1MHZ  |        | 5    | pF                                    |



### **Ratings and Characteristics Curves**

(TA = 25°C unless otherwise noted)

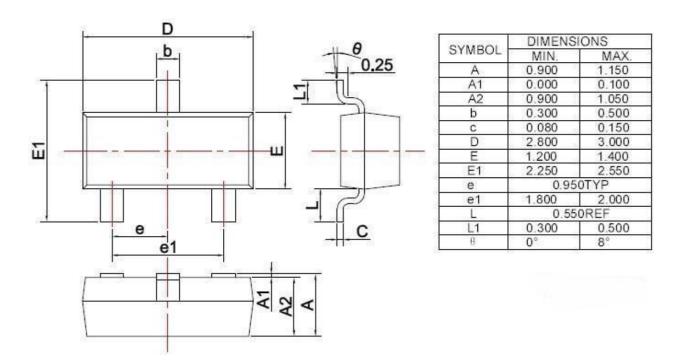






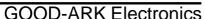
## **Package Outline Dimensions**

millimeters



## **Revision History**

| Document Version | Date of release | Discroption of changes |
|------------------|-----------------|------------------------|
| Rev.A            | 2019.12.24      | First issue            |
|                  |                 |                        |
|                  |                 |                        |





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