

#### **Features**

- Very Small Plastic Package
- High Switching Speed

### **Package Marking and Ordering Information**

| Product ID | Pack    | Marking | Qty(PCS) |
|------------|---------|---------|----------|
| BAS316,115 | SOD-323 | A6      | 3000     |



## Maximum Ratings (Ta=25°C unless otherwise noted)

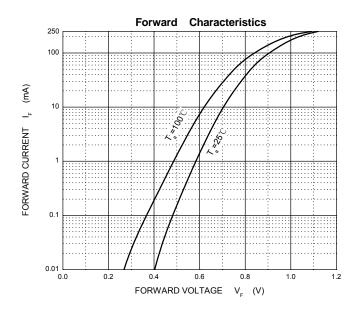
| Symbol           | Parameter  | Value    | Unit       |  |
|------------------|--|----------|------------|--|
| $V_{RRM}$        | Peak Repetitive Reverse Voltage                  | 85       | V          |  |
| V <sub>R</sub>   | DC Blocking Voltage                              | 75       |            |  |
| lo               | Continuous Forward Current                       | 250      | mA         |  |
| I <sub>FSM</sub> | Non-repetitive Peak Forward SurgeCurrent@t=8.3ms | 2.0      | Α          |  |
| P <sub>D</sub>   | Power Dissipation                                | 250      | mW         |  |
| $R_{\theta JA}$  | Thermal Resistance from Junction to Ambient      | 500      | °C/W       |  |
| $T_J, T_{stg}$   | Operation Junction and Storage Temperature Range | -55~+150 | $^{\circ}$ |  |

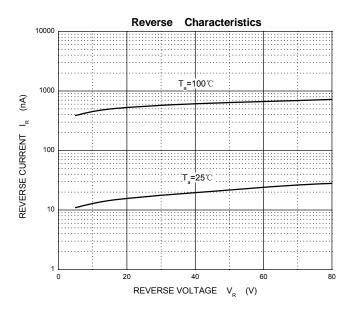
## Electrical Characteristics(Ta=25°C unless otherwise specified)

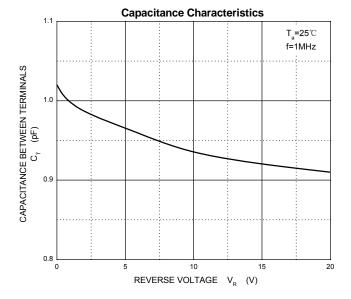
| Parameter             | Symbol           | Test conditions                                | Min | Тур | Max   | Unit |
|-----------------------|------------------|--|-----|-----|-------|------|
| Reverse voltage       | $V_{(BR)}$       | I <sub>R</sub> =100μA                          | 100 |     |       | V    |
| Reverse current       | I <sub>R</sub>   | V <sub>R</sub> =25V                            |     |     | 30    | nA   |
|                       |                  | V <sub>R</sub> =75V                            |     |     | 1     | μA   |
| Forward voltage       | V <sub>F</sub>   | I <sub>F</sub> =1mA                            |     |     | 0.715 | V    |
|                       |                  | I <sub>F</sub> =10mA                           |     |     | 0.855 |      |
|                       |                  | I <sub>F</sub> =50mA                           |     |     | 1     |      |
|                       |                  | I <sub>F</sub> =150mA                          |     |     | 1.25  | l    |
| Total capacitance     | C <sub>tot</sub> | V <sub>R</sub> =0V,f=1MHz                      |     |     | 1.5   | pF   |
| Reverse recovery time | t <sub>rr</sub>  | $I_F = I_R = 10$ mA, $I_{rr} = 0.1 \times I_R$ |     |     | 4     | ns   |

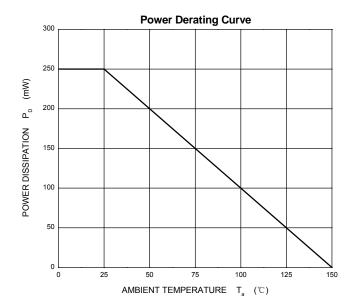


### **Typical Characteristics**



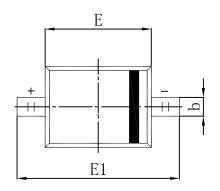


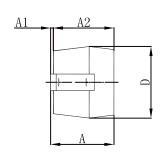


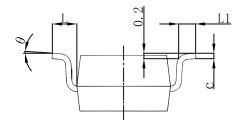




# **SOD-323 Package Outline Dimensions**

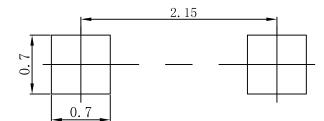






| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |  |
|--------|---------------------------|-------|----------------------|-------|--|
|        | Min                       | Max   | Min                  | Max   |  |
| Α      |                           | 1.100 |                      | 0.043 |  |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |  |
| A2     | 0.800                     | 1.000 | 0.031                | 0.039 |  |
| b      | 0.250                     | 0.350 | 0.010                | 0.014 |  |
| С      | 0.080                     | 0.150 | 0.003                | 0.006 |  |
| D      | 1.200                     | 1.400 | 0.047                | 0.055 |  |
| E      | 1.600                     | 1.800 | 0.063                | 0.071 |  |
| E1     | 2.500                     | 2.750 | 0.098                | 0.108 |  |
| L      | 0.475 REF                 |       | 0.019 REF            |       |  |
| L1     | 0.250                     | 0.400 | 0.010                | 0.016 |  |
| θ      | 0°                        | 8°    | 0°                   | 8°    |  |

SOD-323 Suggested Pad Layout



#### Note:

- 1.Controlling dimension:in millimeters.
- 2.General tolerance:±0.05mm.3.The pad layout is for reference purposes only.



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