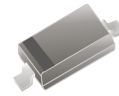


## BAS321-HF

RoHS Device  
Halogen Free

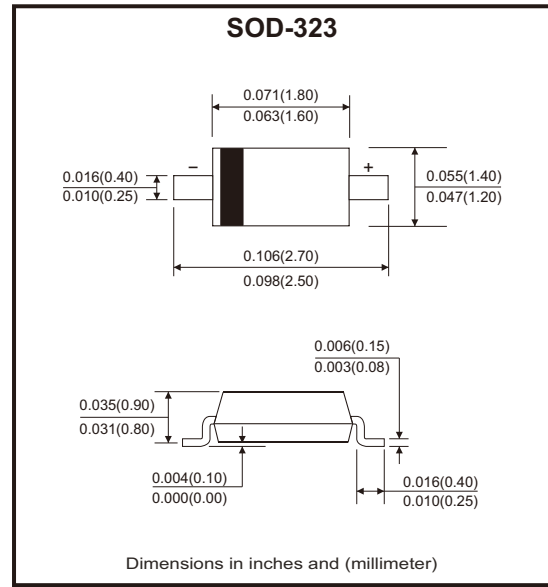


### Features

- Fast switching speed.
- Low leakage current.

### Mechanical data

- Case: SOD-323, molded plastic.
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102.
- Polarity: Cathode line denotes the cathode end.



### Circuit Diagram



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

| Parameter                                                           | Symbol    | Value       | Unit |
|---------------------------------------------------------------------|-----------|-------------|------|
| Repetitive peak reverse voltage                                     | $V_{RRM}$ | 250         | V    |
| Reverse voltage                                                     | $V_R$     | 200         | V    |
| Non-repetitive peak forward surge current @ t=8.3ms, half sine-wave | $I_{FSM}$ | 2           | A    |
| Average forward current                                             | $I_{FAV}$ | 200         | mA   |
| Power dissipation                                                   | $P_D$     | 250         | mW   |
| Junction temperature                                                | $T_J$     | 150         | °C   |
| Storage temperature range                                           | $T_{STG}$ | -55 to +150 | °C   |

Electrical Characteristics (at Ta=25°C unless otherwise noted)

| Parameter             | Symbol          | Conditions                                                                           | Min | Max  | Unit |
|-----------------------|-----------------|--------------------------------------------------------------------------------------|-----|------|------|
| Forward voltage       | V <sub>F</sub>  | I <sub>F</sub> = 100mA                                                               |     | 1.0  | V    |
|                       |                 | I <sub>F</sub> = 200mA                                                               |     | 1.25 |      |
| Reverse current       | I <sub>R</sub>  | V <sub>R</sub> = 200V                                                                |     | 100  | nA   |
| Breakdown voltage     | V <sub>R</sub>  | I <sub>R</sub> = 10μA                                                                | 200 |      | V    |
| Diode capacitance     | C <sub>D</sub>  | V <sub>R</sub> = 0V, f = 1MHz                                                        |     | 5    | pF   |
| Reverse recovery time | t <sub>rr</sub> | I <sub>F</sub> = I <sub>R</sub> = 30mA, R <sub>L</sub> = 100Ω, I <sub>rr</sub> = 3mA |     | 50   | μS   |

Typical Rating and Characteristic Curves (BAS321-HF)

Fig.1 - Forward Characteristics

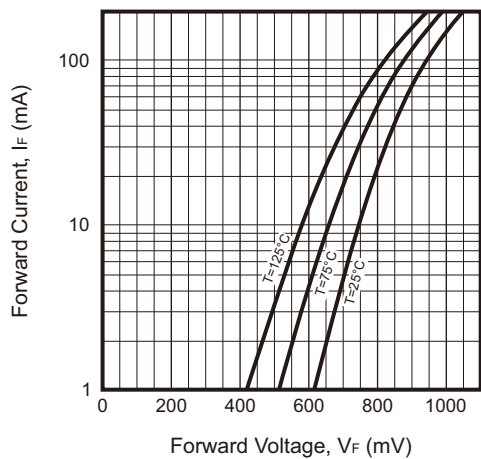


Fig.2 - Reverse Characteristics

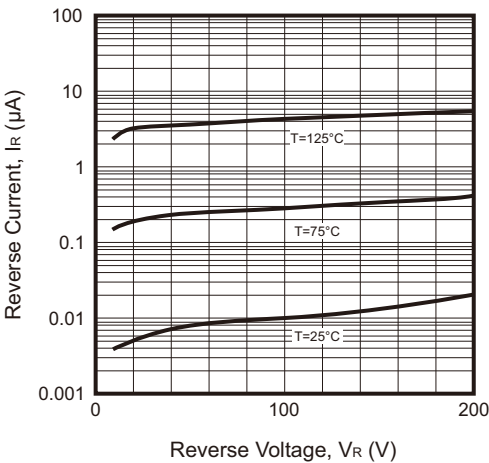
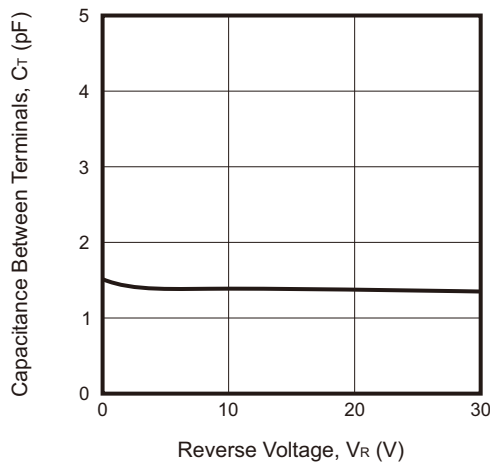
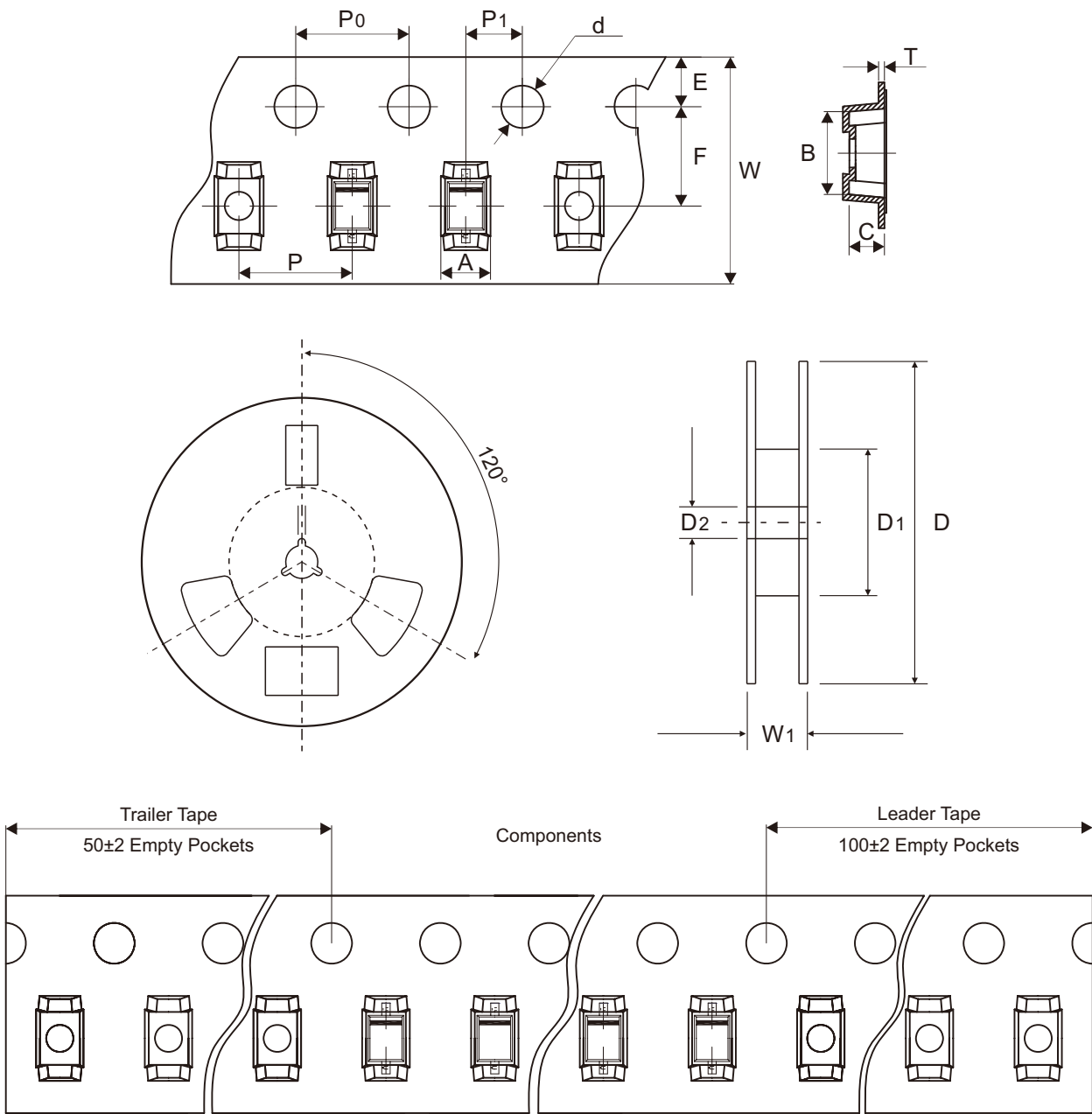


Fig.3 - Capacitance Characteristics



Reel Taping Specification



| SOD-323 | SYMBOL | A             | B             | C             | d                        | D             | D1            | D2            |
|---------|--------|---------------|---------------|---------------|--------------------------|---------------|---------------|---------------|
|         | (mm)   | 1.50 ± 0.05   | 2.90 ± 0.10   | 1.25 ± 0.10   | 1.50 + 0.10<br>- 0.00    | 178.00 ± 2.00 | 54.40 ± 1.00  | 13.00 ± 1.00  |
|         | (inch) | 0.059 ± 0.002 | 0.114 ± 0.004 | 0.049 ± 0.004 | 0.059 + 0.004<br>- 0.000 | 7.008 ± 0.079 | 2.142 ± 0.039 | 0.512 ± 0.039 |

| SOD-323 | SYMBOL | E             | F             | P             | P0            | P1            | T             | W                        | W1            |
|---------|--------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|---------------|
|         | (mm)   | 1.75 ± 0.10   | 3.50 ± 0.05   | 4.00 ± 0.10   | 4.00 ± 0.10   | 2.00 ± 0.05   | 0.254 ± 0.02  | 8.00 + 0.30<br>- 0.10    | 12.30 ± 1.00  |
|         | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.010 ± 0.001 | 0.315 + 0.012<br>- 0.004 | 0.484 ± 0.039 |

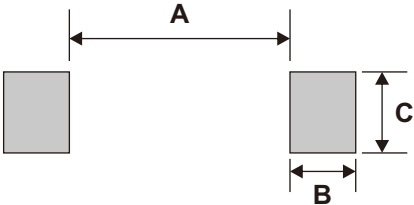
Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| BAS321-HF   | T3.          |



Suggested P.C.B. PAD Layout

| SIZE | SOD-323 |        |
|------|---------|--------|
|      | (mm)    | (inch) |
| A    | 1.88    | 0.074  |
| B    | 0.56    | 0.022  |
| C    | 0.69    | 0.027  |



Standard Packaging

| Case Type | REEL PACK  |                  |
|-----------|------------|------------------|
|           | REEL (pcs) | Reel Size (inch) |
| SOD-323   | 3,000      | 7                |

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Authorized Distributor

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