



# BAS70W-04-05-06

## Schottky Barrier Diode

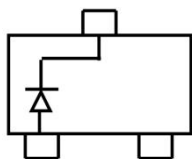
### Features

- Low turn-on voltage
- Fast switching
- Also available in lead free version

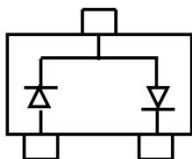


### Marking:

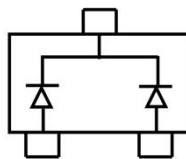
**SOT-323**



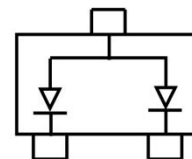
BAS70W Marking: K73



BAS70W-04 Marking: K74



BAS70W-05 Marking: K75



BAS70W-06 Marking: K76

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

| Parameter                                  | Symbol          | Value    | Unit                        |
|--------------------------------------------|-----------------|----------|-----------------------------|
| DC Voltage                                 | $V_R$           | 70       | V                           |
| Continuous Forward Current                 | $I_F$           | 70       | mA                          |
| Surge Non-Repetitive Forward Current@8.3ms | $I_{FSM}$       | 100      | mA                          |
| Power Dissipation                          | $P_D$           | 200      | mW                          |
| Thermal Resistance Junction to Ambient     | $R_{\theta JA}$ | 500      | $^{\circ}\text{C}/\text{W}$ |
| Junction Temperature                       | $T_J$           | 125      | $^{\circ}\text{C}$          |
| Storage Temperature Range                  | $T_{STG}$       | -55~+150 | $^{\circ}\text{C}$          |

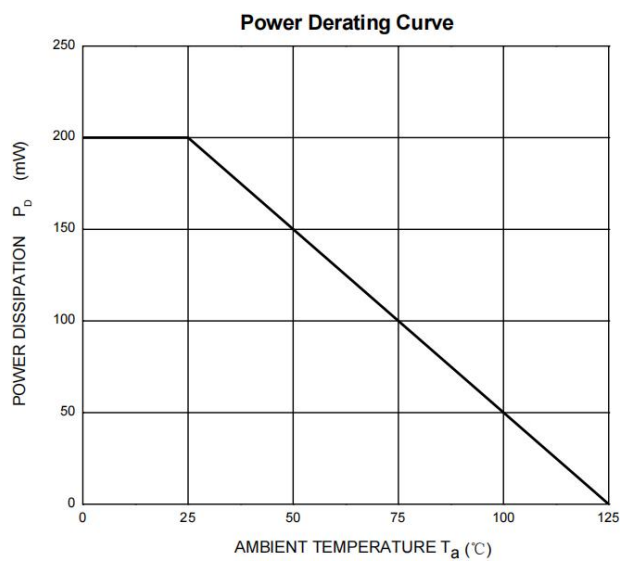
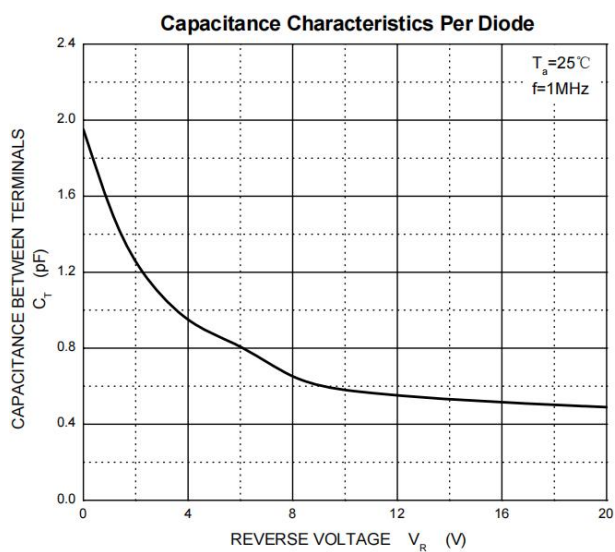
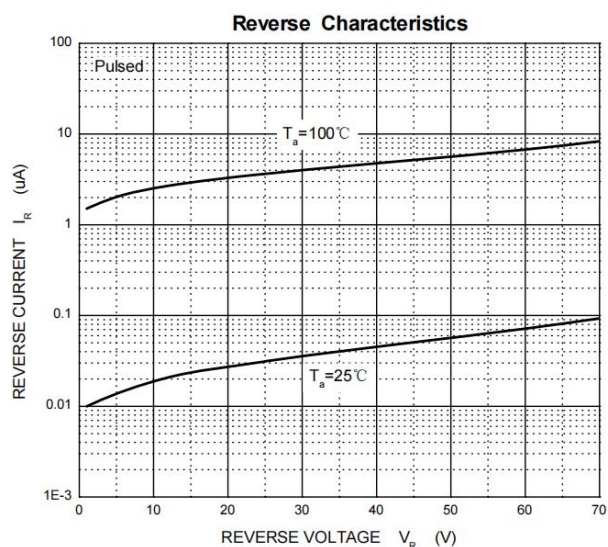
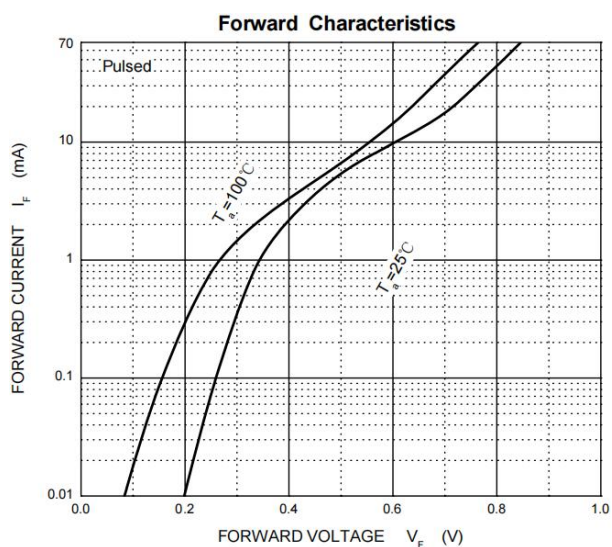
### Electrical Characteristics( $T_A=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter                 | Symbol   | Conditions                                                       | Min | Max  | Unit |
|---------------------------|----------|------------------------------------------------------------------|-----|------|------|
| Reverse Breakdown Voltage | $V_{BR}$ | $I_R=10\mu\text{A}$                                              | 70  | -    | V    |
| Forward Voltage           | $V_F$    | $I_F=1\text{mA}$                                                 | -   | 410  | mV   |
|                           |          | $I_F=15\text{mA}$                                                |     | 1000 |      |
| Reverse Current           | $I_R$    | $V_R=50\text{V}$                                                 | -   | 100  | nA   |
| Diode Capacitance         | $C_D$    | $V_R=0\text{V}, f=1\text{MHz}$                                   | -   | 2    | pF   |
| Reverse Recovery Time     | $t_{rr}$ | $I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R,$<br>$R_L=100\Omega$ | -   | 5    | ns   |



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## Typical Characteristic



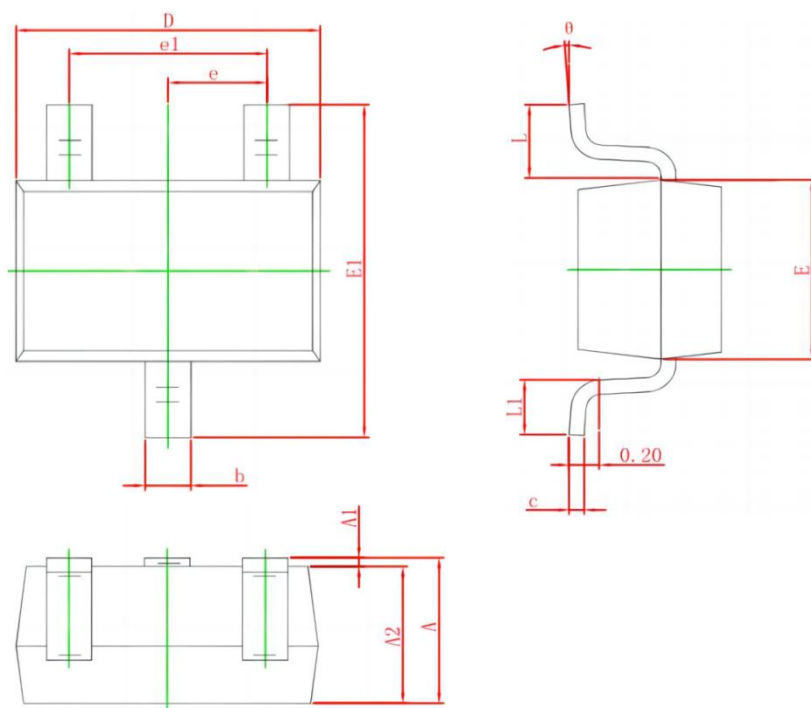


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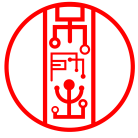
## Package Information

### SOT-323

#### Dimensions in mm



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 0.900                     | 1.100 | 0.035                | 0.043 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.900                     | 1.000 | 0.035                | 0.039 |
| b      | 0.200                     | 0.400 | 0.008                | 0.016 |
| c      | 0.080                     | 0.150 | 0.003                | 0.006 |
| D      | 2.000                     | 2.200 | 0.079                | 0.087 |
| E      | 1.150                     | 1.350 | 0.045                | 0.053 |
| E1     | 2.150                     | 2.450 | 0.085                | 0.096 |
| e      | 0.650 TYP.                |       | 0.026 TYP.           |       |
| e1     | 1.200                     | 1.400 | 0.047                | 0.055 |
| L      | 0.525 REF.                |       | 0.021 REF.           |       |
| L1     | 0.260                     | 0.460 | 0.010                | 0.018 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |



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