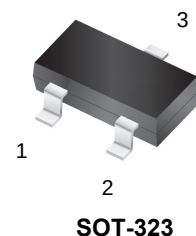
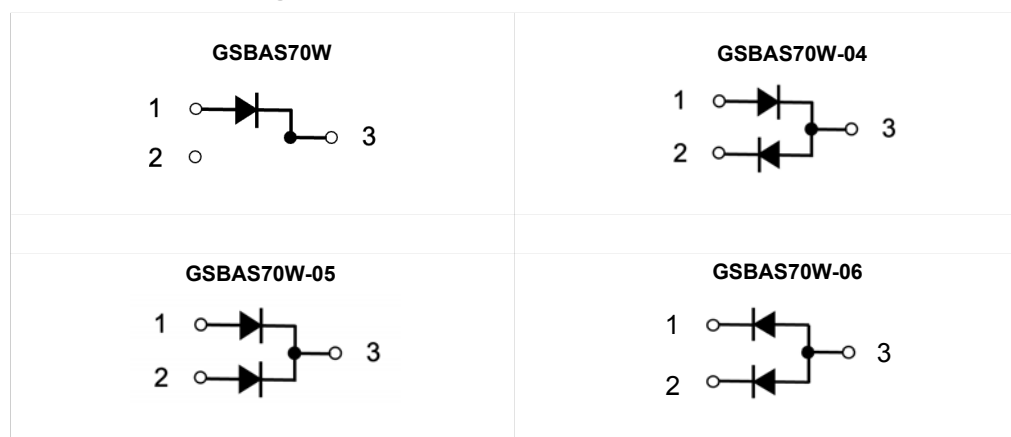


## Features

- High conductance
- Low current leakage
- Small outline surface mount package



## Schematic Diagram



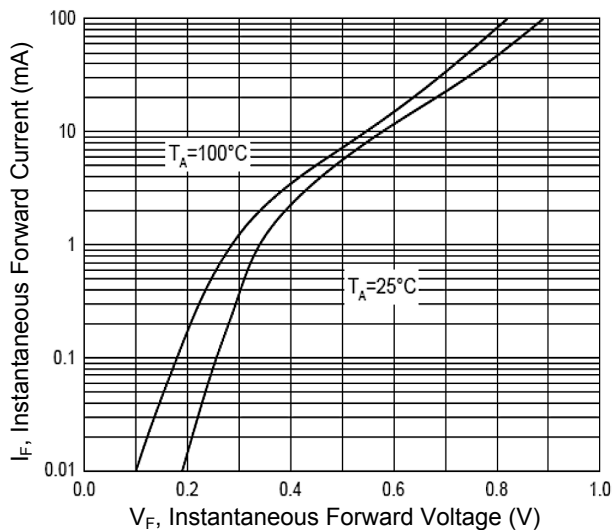
## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

| Parameter                                         | Symbol            | Value       | Units |
|---------------------------------------------------|-------------------|-------------|-------|
| Reverse Voltage                                   | V <sub>R</sub>    | 70          | V     |
| Forward Continuous Current                        | I <sub>F</sub>    | 70          | mA    |
| Power Dissipation                                 | P <sub>tot</sub>  | 200         | mW    |
| Peak Forward Surge Current (t=1S. Non-Repetitive) | I <sub>FSM</sub>  | 0.1         | A     |
| Thermal Resistance Junction to Ambient            | R <sub>θJA</sub>  | 430         | °C/W  |
| Operating Junction Temperature                    | T <sub>J</sub>    | 125         | °C    |
| Storage Temperature Range                         | T <sub>STG</sub>  | -55 to +150 | °C    |
| Soldering Temperature                             | T <sub>sold</sub> | 260         | °C    |

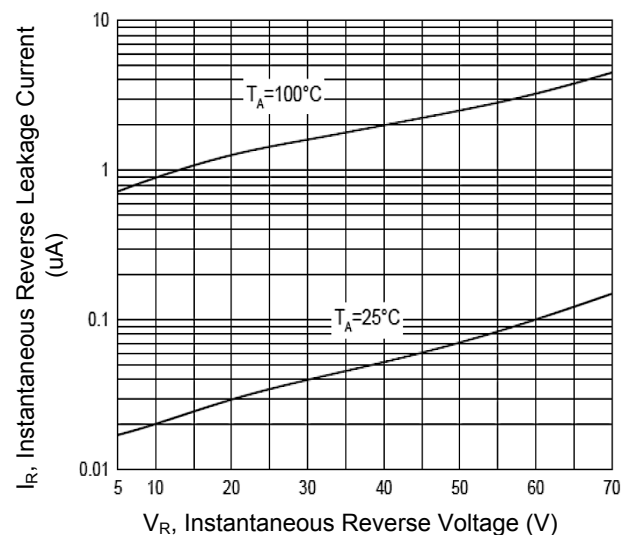
**Electrical Characteristics** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

| Parameter                       | Symbol   | Test Conditions                                | Min | Max  | Units |
|---------------------------------|----------|------------------------------------------------|-----|------|-------|
| Forward Voltage                 | $V_F$    | $I_F=1\text{mA}$                               | -   | 0.41 | V     |
|                                 |          | $I_F=15\text{mA}$                              | -   | 1    | V     |
| Reverse Breakdown Voltage       | $V_R$    | $I_R=10\mu\text{A}$                            | 70  | -    | V     |
| Reverse Voltage Leakage Current | $I_R$    | $V_R=50\text{V}$                               | -   | 100  | nA    |
| Typical Junction Capacitance    | $C_J$    | $V_R=0\text{V}$ , $f=1.0\text{MHz}$            | -   | 2    | pF    |
| Reverse Recovery Time           | $T_{rr}$ | $I_F=I_R=10\text{mA}$ , $I_{(REC)}=1\text{mA}$ | -   | 5    | nS    |

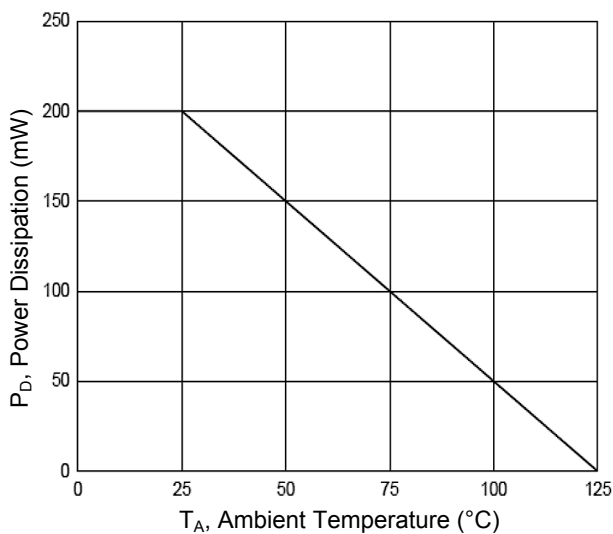
**Typical Characteristic Curves**



**Figure 1. Typical Instantaneous Forward Characteristics**

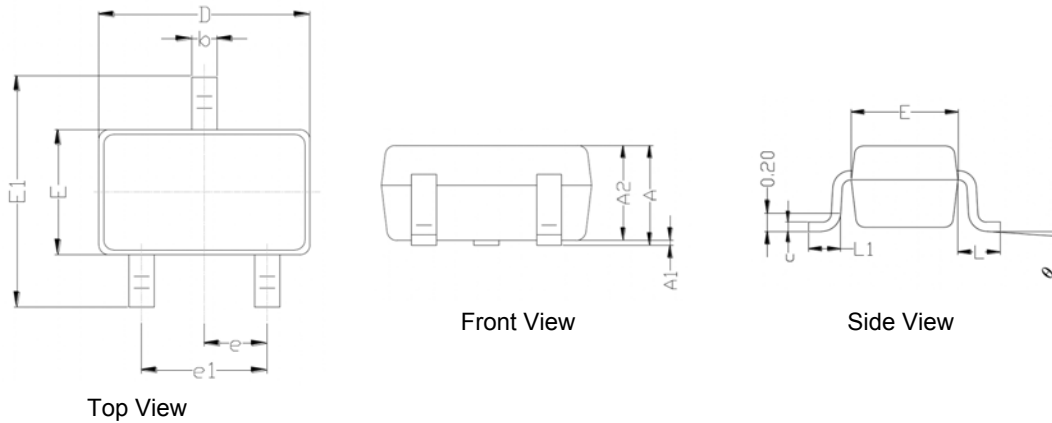


**Figure 2. Typical Reverse Leakage Characteristics**



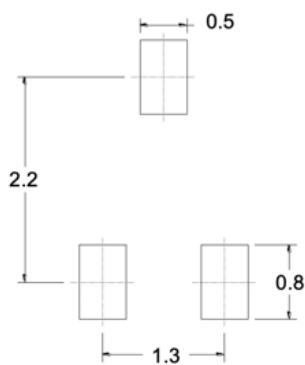
**Figure 3. Power Derating Curve**

**Package Outline Dimensions (SOT-323)**



| Symbol | Dimensions in Millimeters |       | Dimensions in Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 0.900                     | 1.000 | 0.035                | 0.039 |
| 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                     | 2.400 | 0.085                | 0.094 |
| 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                     | 0.450 | 0.010                | 0.018 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

**Recommended Pad Layout**



Notes:

1. Dimensions in millimeters
2. The pad layout is for reference

## Order Information

| Device      | Package | Marking | Carrier     | Quantity         |
|-------------|---------|---------|-------------|------------------|
| GSBAS70W    | SOT-323 | 73      | Tape & Reel | 3,000 Pcs / Reel |
| GSBAS70W-04 | SOT-323 | 74      | Tape & Reel | 3,000 Pcs / Reel |
| GSBAS70W-05 | SOT-323 | 75      | Tape & Reel | 3,000 Pcs / Reel |
| GSBAS70W-06 | SOT-323 | 76      | Tape & Reel | 3,000 Pcs / Reel |