

## SIGNAL DIODES 100 – 200 MA TYPES

| Part Number | BV<br>@ 100 $\mu$ A<br>Min.<br>(V) | I <sub>r</sub><br>@ 25°C<br>Max. |                      | V <sub>f</sub><br>Max. |                       | C <sub>o</sub><br>@ 0V<br>(pf) | t <sub>rr</sub><br>(nsec) | Package<br>Type | Package<br>Outline No. |
|-------------|------------------------------------|----------------------------------|----------------------|------------------------|-----------------------|--------------------------------|---------------------------|-----------------|------------------------|
|             |                                    | (nA)                             | @ V <sub>R</sub> (V) | (V)                    | @ I <sub>F</sub> (mA) |                                |                           |                 |                        |
| 1N4150 *    | 50                                 | 100                              | 50                   | 1.00                   | 200                   | 2.5                            | 4                         | D035            | 38                     |
| 1N4450      | 30                                 | 50                               | 30                   | 1.00                   | 200                   | 4                              | 4                         | D035            | 38                     |
| 1N4606      | 85                                 | 100                              | 50                   | 1.00                   | 200                   | 2.5                            | 4                         | D035            | 38                     |

## 200 – 400 MA TYPES

| Part Number | BV<br>@ 100 $\mu$ A<br>Min.<br>(V) | I <sub>r</sub><br>@ 25°C<br>Max. |                      | V <sub>f</sub><br>Max. |                       | C <sub>o</sub><br>@ 0V<br>(pf) | t <sub>rr</sub><br>(nsec) | Package<br>Type | Package<br>Outline No. |
|-------------|------------------------------------|----------------------------------|----------------------|------------------------|-----------------------|--------------------------------|---------------------------|-----------------|------------------------|
|             |                                    | (nA)                             | @ V <sub>R</sub> (V) | (V)                    | @ I <sub>F</sub> (mA) |                                |                           |                 |                        |
| 1N4451      | 40                                 | 50                               | 30                   | 1.00                   | 300                   | 6                              | 10                        | D035            | 38                     |
| 1N4607      | 85                                 | 100                              | 50                   | 1.00                   | 400                   | 4                              | 10                        | D035            | 38                     |
| 1N4608      | 85                                 | 100                              | 50                   | .98                    | 400                   | 4                              | 10                        | D035            | 38                     |
| DT230C      | 300                                | 1000                             | 300                  | 1.20                   | 250                   | 5                              | 300                       | D035            | 38                     |
| DT230H      | 250                                | 1000                             | 250                  | 1.00                   | 200                   | 5                              | 300                       | D035            | 38                     |
| DT230HI     | 250                                | 1000                             | 250                  | 1.10                   | 250                   | 5                              | 300                       | D035            | 38                     |
| DT230B      | 200                                | 1000                             | 200                  | 1.10                   | 250                   | 5                              | 300                       | D035            | 38                     |
| DT230G      | 150                                | 1000                             | 150                  | 1.10                   | 250                   | 5                              | 300                       | D035            | 38                     |
| DT230A      | 100                                | 1000                             | 100                  | 1.10                   | 250                   | 5                              | 300                       | D035            | 38                     |
| DT230F      | 50                                 | 1000                             | 50                   | 1.10                   | 250                   | 5                              | 300                       | D035            | 38                     |

\* JAN and JANTX types available

## MULTIPELLET SILICON SIGNAL DIODES

40, 41, 42

| Part Number | BV<br>@ 5 $\mu$ A<br>(V) | I <sub>r</sub><br>@ 25°C<br>Max. |                      | V <sub>f</sub><br>Max. |                       | C <sub>o</sub><br>@ 0V<br>Max.<br>(pf) | t <sub>rr</sub><br>(nsec) | Package<br>Type | Package<br>Outline No. |
|-------------|--------------------------|----------------------------------|----------------------|------------------------|-----------------------|--|---------------------------|-----------------|------------------------|
|             |                          | (nA)                             | @ V <sub>R</sub> (V) | (V)                    | @ I <sub>F</sub> (mA) |  |                           |                 |                        |
| 1N4156      | 30                       | 50                               | 20                   | 1.58                   | 10                    | 25                                     | —                         | D035            | 42                     |
| 1N4157      | 30                       | 50                               | 20                   | 2.32                   | 10                    | 20                                     | —                         | D035            | 41                     |
| 1N4453      | 30                       | 50                               | 20                   | .800                   | 10                    | 30                                     | —                         | D035            | 38                     |
| 1N4828      | 30                       | 100                              | 20                   | .830                   | 10                    | 35                                     | —                         | D035            | 38                     |
| 1N4829      | 30 <sup>1</sup>          | 100                              | 20                   | 1.61                   | 10                    | 25                                     | —                         | D035            | 42                     |
| 1N4830      | 30 <sup>1</sup>          | 100                              | 20                   | 2.35                   | 10                    | 20                                     | —                         | D035            | 41                     |
| 1N5179      | 30                       | 50                               | 20                   | 3.20                   | 10                    | 20                                     | —                         | D035            | 40                     |
| MPD200      | 70                       | 30                               | 30                   | 1.54                   | 10                    | 15                                     | —                         | D035            | 42                     |
| MPD201      | 50                       | 50                               | 20                   | 1.57                   | 10                    | 15                                     | —                         | D035            | 42                     |
| MPD202      | 50                       | 90                               | 20                   | 1.60                   | 10                    | 15                                     | —                         | D035            | 42                     |
| MPD203      | 50                       | 90                               | 20                   | 1.51                   | 10                    | 15                                     | —                         | D035            | 42                     |
| STB567      | 50                       | 500                              | 20                   | 1.61                   | 10                    | 15                                     | —                         | D035            | 42                     |
| MPD300      | 100                      | 30                               | 30                   | 2.33                   | 10                    | 10                                     | —                         | D035            | 41                     |
| MPD301      | 60                       | 40                               | 20                   | 2.32                   | 10                    | 10                                     | —                         | D035            | 41                     |
| MPD302      | 60                       | 90                               | 20                   | 2.32                   | 10                    | 10                                     | —                         | D035            | 41                     |
| STB568      | 60                       | 500                              | 20                   | 2.31                   | 10                    | 10                                     | —                         | D035            | 41                     |
| MPD400      | 120                      | 30                               | 30                   | 3.07                   | 10                    | 7                                      | —                         | D035            | 40                     |
| MPD401      | 75                       | 50                               | 20                   | 3.01                   | 10                    | 7                                      | —                         | D035            | 40                     |
| MPD402      | 75                       | 90                               | 20                   | 3.01                   | 10                    | 7                                      | —                         | D035            | 40                     |
| STB569      | 75                       | 500                              | 20                   | 3.01                   | 10                    | 7                                      | —                         | D035            | 40                     |

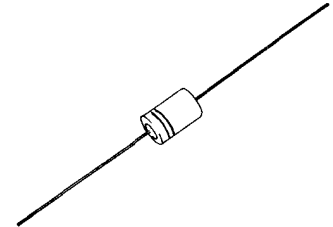
<sup>1</sup> Measured @ 100 $\mu$ A

# Silicon Diodes

## STABISTORS

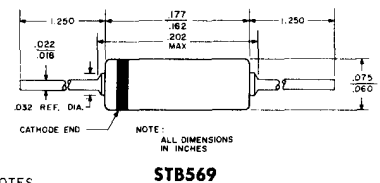
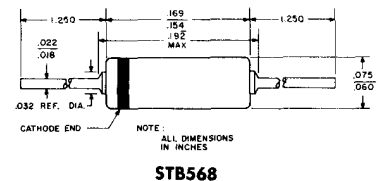
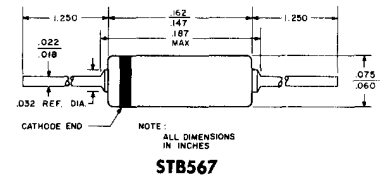
**STB567, 8, 9**

These low-cost General Electric Stabistors are multi-pellet diodes which have a tightly controlled conductance at  $I_F = 10\text{mA}$ . They consist of 2, 3, or 4 planar passivated epitaxial diode pellets in series, mounted in a subminiature double-heatsink package. The STB567, STB568, and STB569 are examples of such diodes with 2, 3, and 4 pellets respectively. These diodes can be used as low voltage regulator diodes or to maintain a bias on the output transistor of push-pull amplifiers. Multi-Pellet Stabistors maintain LINEAR temperature response (in millivolts per degree C) over the ambient temperature range of  $-55^\circ\text{C}$  to  $+175^\circ\text{C}$ . Nominal change in voltage for the STB567, STB568, and STB569 is 4mV, 6mV, and 8mV respectively for each degree C change in ambient temperature.



### absolute maximum ratings: ( $25^\circ\text{C}$ ) (unless otherwise specified)

|   |   |                 |                  |
|---|---|-----------------|------------------|
| <b>Voltage</b>  |   |                 |                  |
| Reverse (continuous)  |   | 12              | volts            |
| <b>Power</b>  |   |                 |                  |
| Dissipation   |   | 400             | mW               |
|   | (Derate: 2.67 mW/ $^\circ\text{C}$ for Ambient Temperature above $25^\circ\text{C}$ ) |                 |                  |
| <b>Temperature</b>  |   |                 |                  |
| Operating   |   | $-65$ to $+175$ | $^\circ\text{C}$ |
| Storage   |   | $-65$ to $+200$ | $^\circ\text{C}$ |
| Lead ( $\frac{1}{16} \pm \frac{1}{32}$ inch from case for 10 sec) |   | 300             | $^\circ\text{C}$ |



**NOTES**

1. ALL DIMENSIONS ARE IN INCHES AND ARE REFERENCE UNLESS TOLERANCED

### electrical characteristics: ( $25^\circ\text{C}$ ) (unless otherwise specified)

|                          | <b>STB567</b> |      | <b>STB568</b> |      | <b>STB569</b> |      |       |
|--------------------------|---------------|------|---------------|------|---------------|------|-------|
|                          | Min.          | Max. | Min.          | Max. | Min.          | Max. |       |
| <b>Forward Voltage*</b>  |               |      |               |      |               |      |       |
| $I_F = 10\text{mA}$      | 1.31          | 1.61 | 2.09          | 2.31 | 2.72          | 3.01 | Volts |
| <b>Breakdown Voltage</b> |               |      |               |      |               |      |       |
| $I_R = 5\mu\text{A}$     | 12            |      | 12            |      | 12            |      | Volts |

**\*Forward Voltage Tolerances:**

|        |                 |
|--------|-----------------|
| STB567 | $1.46 \pm 10\%$ |
| STB568 | $2.20 \pm 5\%$  |
| STB569 | $2.87 \pm 5\%$  |