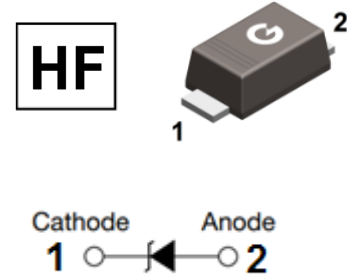


## Schottky Barrier Rectifier

## GVS13FL - GVS14FL

### Features

- Metal silicon junction, majority carrier conduction
- High forward surge current capability
- Low forward voltage drop
- High temperature soldering guaranteed: 260°C @ 10s
- Robust guarding for over voltage protection
- RoHS compliant with Halogen-free



### Mechanical Data

- Case: SOD-123FL molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Matte tin plated leads; solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes cathode end

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

| Parameter                                                  | Symbol            | GVS13FL | GVS14FL | Unit |
|------------------------------------------------------------|-------------------|---------|---------|------|
| Peak Repetitive Reverse Voltage                            | V <sub>RRM</sub>  | 30      | 40      | V    |
| RMS Reverse Voltage                                        | V <sub>RMS</sub>  | 21      | 28      | V    |
| DC Blocking Voltage                                        | V <sub>DC</sub>   | 30      | 40      | V    |
| Maximum Average Forward Output Current                     | I <sub>F_AV</sub> | 1.0     |         | A    |
| Peak Forward Surge Current,<br>8.3ms Single Half Sine wave | I <sub>FSM</sub>  | 30      |         | A    |

### Thermal Characteristics

| Parameter                            | Symbol           | GVS13FL    | GVS14FL | Unit |
|--------------------------------------|------------------|------------|---------|------|
| Typical Thermal Resistance *1        | R <sub>θJA</sub> | 85         |         | °C/W |
|                                      | R <sub>θJC</sub> | 23         |         |      |
|                                      | R <sub>θJL</sub> | 15         |         |      |
| Operating Junction Temperature Range | T <sub>J</sub>   | -55 ~ +125 |         | °C   |
| Storage Temperature Range            | T <sub>STG</sub> | -55 ~ +150 |         | °C   |

Note \*1: Device mounted on p.c.b. with 10 mm x 20 mm x 0.1 mm copper pad area

## Schottky Barrier Rectifier

## GVS13FL - GVS14FL

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

| Parameter                                   | Symbol     | Test Conditions                  |                             | Min. | Typ. | Max. | Unit          |
|---------------------------------------------|------------|----------------------------------|-----------------------------|------|------|------|---------------|
| Reverse Breakdown Voltage                   | $V_{(BR)}$ | $I_R = 100\mu\text{A}$ , GVS13FL |                             | 30   | -    | -    | V             |
|                                             |            | $I_R = 100\mu\text{A}$ , GVS14FL |                             | 40   | -    | -    | V             |
| Instantaneous Forward Voltage* <sup>1</sup> | $V_F$      | $I_F = 1.0\text{A}$              | @ $T_A = 25^\circ\text{C}$  | -    | -    | 0.43 | V             |
| Reverse Current* <sup>2</sup>               | $I_R$      | Rated<br>$V_R$                   | @ $T_J = 25^\circ\text{C}$  | -    | -    | 50   | $\mu\text{A}$ |
|                                             |            |                                  | @ $T_J = 100^\circ\text{C}$ | -    | -    | 5    | mA            |

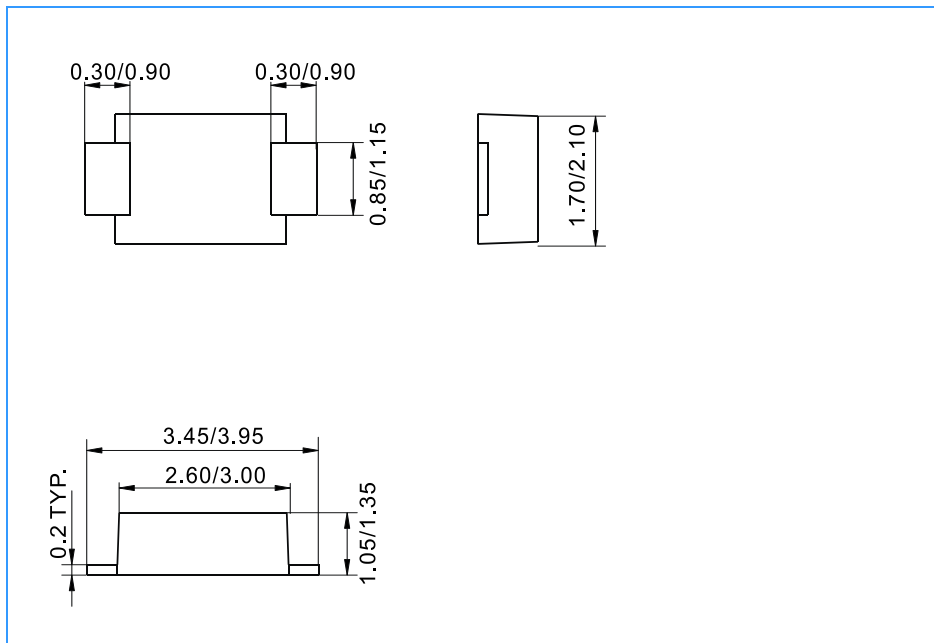
Note\*<sup>1</sup>: Pulse test: 300us pulse width, 1 % duty cycle

Note\*<sup>2</sup>: Pulse test: Pulse width 40ms

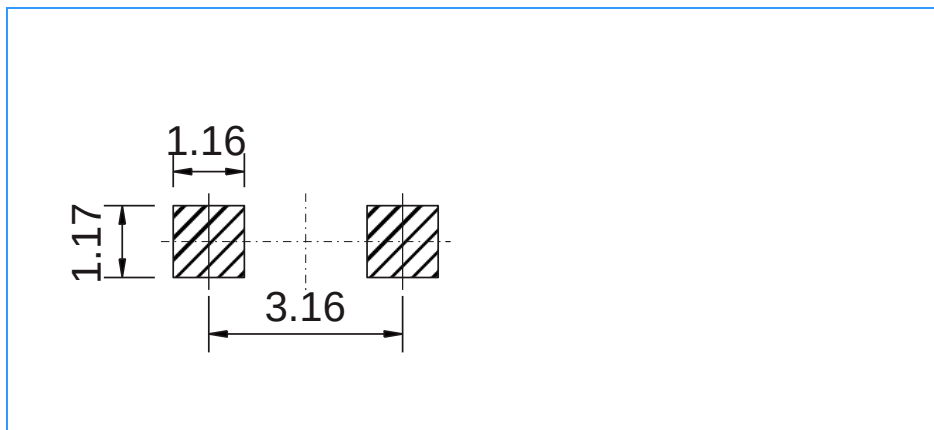
## Schottky Barrier Rectifier

## GVS13FL - GVS14FL

### Package Outline Dimensions (Unit: mm)



### Mounting Pad Layout (Unit: mm)



### Ordering Information

| Part Number | Marking | Package   | Shipping Quantity       |
|-------------|---------|-----------|-------------------------|
| GVS13FL     | V13     | SOD-123FL | 10000 pcs / Tape & Reel |
| GVS14FL     | V14     | SOD-123FL | 10000 pcs / Tape & Reel |