

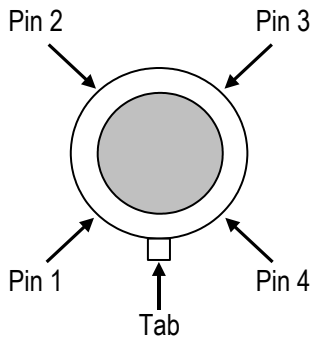
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## List of Tables

|          |   |    |
|----------|---|----|
| Table 1. | Pin Descriptions.....                   | 4  |
| Table 2. | Electrical Specifications.....          | 4  |
| Table 3. | Temperature Specifications.....         | 5  |
| Table 4. | Maximum ESD Ratings .....               | 14 |
| Table 5. | Mechanical Stress Test Conditions ..... | 14 |

## 1. Pin Assignments

**Figure 2. Pin Assignments for SGAS701 – Top View**



## 2. Pin Descriptions

**Table 1. Pin Descriptions**

| Pin Number | Name     | Description  |
|------------|----------|--|
| 1          | Heater + | Positive input for $V_H$ heater voltage supply   |
| 2          | Sensor + | High-side of resistive sensor element; positive input for sensing voltage $V_C$  |
| 3          | Heater – | Negative (ground) input for $V_H$ heater voltage supply  |
| 4          | Sensor – | Low-side of resistive sensor element; connects to middle of resistor divider circuit to produce sensing voltage output ( $V_{OUT}$ ) |

## 3. Sensor Specifications

**Note:** All measurements were made in dry gas at room temperature. Specifications are subject to change.

**Table 2. Electrical Specifications**

| Symbol             | Parameter  | Conditions                  | Minimum | Typical | Maximum | Units      |
|--------------------|--|-----------------------------|---------|---------|---------|------------|
| $P_H$              | Heater power consumption                                 | $V_H = 5.4V$                |         | 600     |         | mW         |
| $V_H$              | Recommended heater voltage                               | $T_{SENSOR} = 240^{\circ}C$ |         | 5.4     |         | VDC        |
| $R_H$              | Heater resistance  | At room temperature         | 28      | 30      | 32      | $\Omega$   |
| $V_C$              | Recommended sensing voltage                              |                             | 2.5     |         | 5.0     | VDC        |
| $R_{10}$           | Resistance in 10ppm $H_2$                                |                             | 30      |         | 3000    | k $\Omega$ |
| $R_{100}$          | Resistance in 100ppm $H_2$                               |                             | 10      |         | 1000    | k $\Omega$ |
| $R_{50} / R_{100}$ | Resolution: Resistance in 50 ppm / Resistance in 100 ppm |                             | > 1.2   |         |         |            |