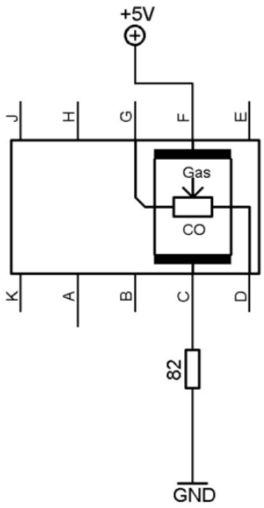
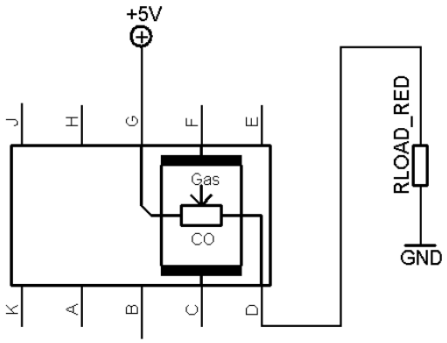



MiCS-5524 with recommended supply circuit (top view)

R is a 82 Ω. This resistor is necessary to obtain the right temperature on the heater while using a single 5V power supply. The resulting voltage is typically VH = 2.4V.

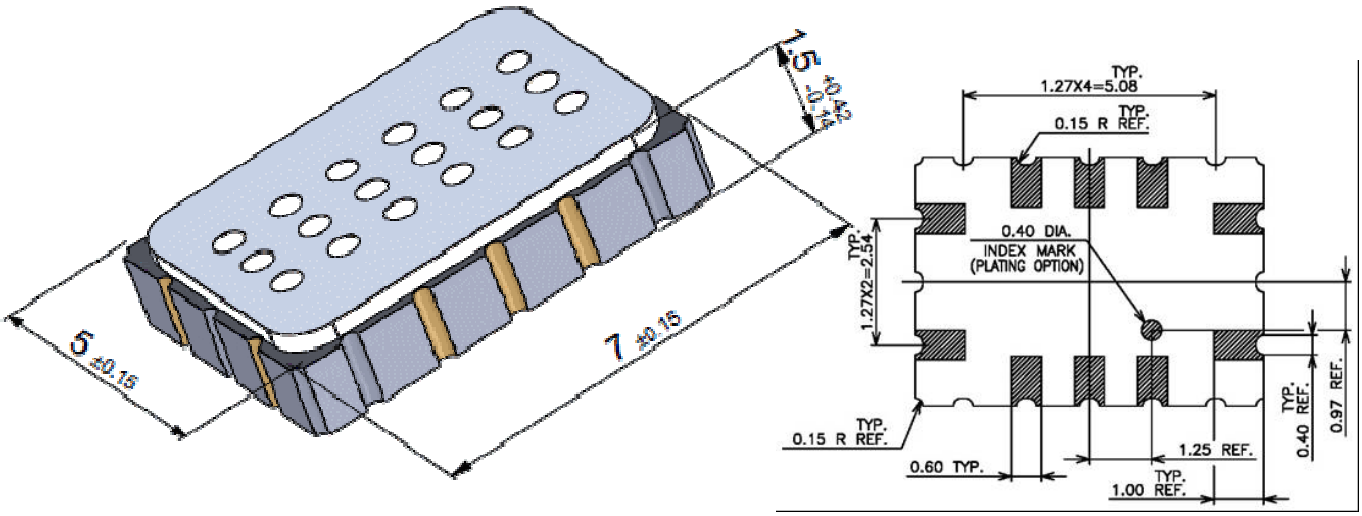



MiCS-5524 with measurement circuit (top view)

The voltage measured on the load resistor is directly linked to the resistance of the sensor respectively. RLOAD must be 820 Ω at the lowest in order not to damage the sensitive layer.

| Parameter | Symbol | Typ | Min | Max | Unit |
|---|---|---|---|---|---|
| Heating power | $P_H$ | 76 | 71 | 81 | mW |
| Heating voltage | $V_H$ | 2.4 | - | - | V |
| Heating current | $I_H$ | 32 | - | - | mA |
| Heating resistance at nominal power | $R_H$ | 74 | 66 | 82 | Ω |

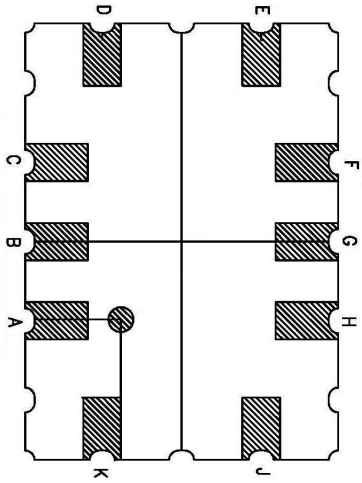
| Rating | Symbol | Value / Range | Unit |
|---|---|---|---|
| Maximum heater power dissipation | $P_H$ | 88 | mW |
| Maximum sensitive layer power dissipation | Ps | 8 | mW |
| Voltage supplyHeating current | Vsupply | 4.9 – 5.1 | V |
| Relative humidity range | RH | 5 – 95 | %RH |
| Ambient operating temperature | Tamb | -30 – 85 | °C |
| Storage temperature range | Tsto | -40 – 120 | °C |
| Storage humidity range | RHsto | 5 - 95 | %RH |




## Package outline dimensions

The package is compatible with SMD assembly process.

| Pin | Connection |
|---|---|
| A | |
| B | |
| C | Rh1 |
| D | Rs1 |
| E | |
| F | Rh2 |
| G | Rs2 |
| H | |
| J | |
| K | |




MiCS-5524 configuration (bottom view)

## Sensor configuration

The silicon gas sensor structure consists of an accurately micro machined diaphragm with an embedded heating resistor and the sensing layer on top.
The internal connections are shown above.