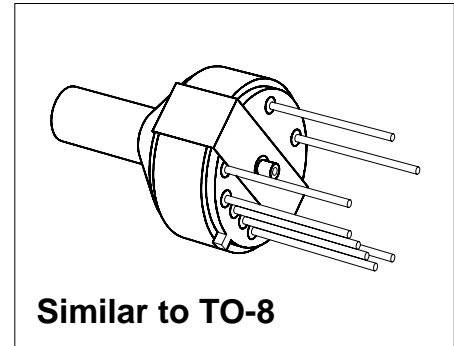


## Silicon Piezoresistive Relative Pressure Sensor

KPY 32-RK

### Features

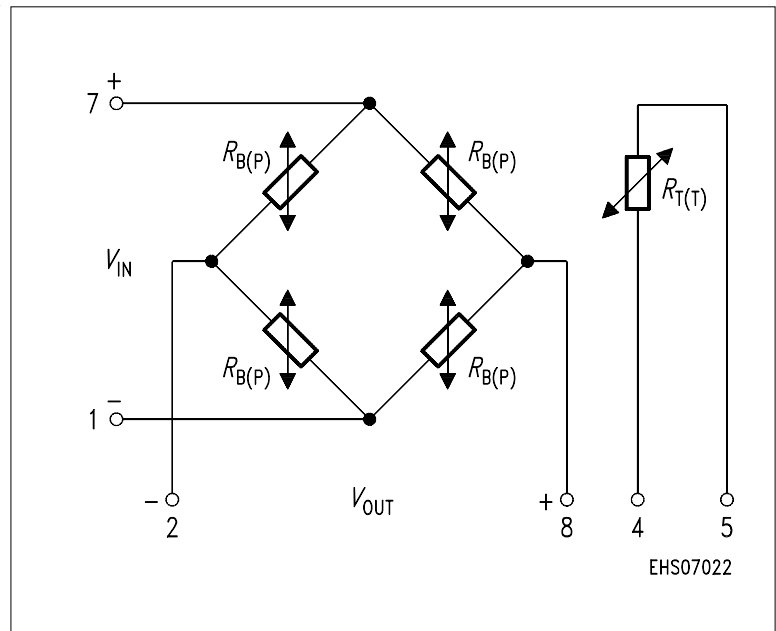
- Low pressure and temperature hysteresis
- Fast response
- High sensitivity and linearity
- Fatigue free monocrystalline silicon diaphragm giving high load cycle stability
- High long term stability
- Provided for further fabrication, protection cap



Type and Marking	Symbol	Pressure Range	Unit	Ordering Code
KPY 32-RK	$P_0 \dots P_N$	0 ... 0.06	bar	Q62705-K266

### Pin Configuration

1	$-V_{IN}$
2	$-V_{OUT}$
3	Not connected
4	Temperature sensor (typ. $R_{25} = 2 \text{ k}\Omega$ )
5	Temperature sensor
6	Shielding, to be connected to $+V_{IN}$
7	$+V_{IN}$
8	$+V_{OUT}$



## Absolute Maximum Ratings

Parameter	Symbol	Limit Values	Unit
Pressure overload	$P_{MAX}$	$\pm 0.6$	bar
Operating temperature range	$T_A$	$-40 \dots +125$	$^{\circ}\text{C}$
Storage temperature range	$T_{stg}$	$-50 \dots +150$	$^{\circ}\text{C}$
Supply voltage	$V_{IN}$	12	V

## Electrical Characteristics

at  $T_A = 25^{\circ}\text{C}$  and  $V_{IN} = 5\text{ V}$ , unless otherwise specified.

Parameter	Symbol	Limit Values			Unit
		min.	typ.	max.	
Bridge resistance	$R_B$	4	–	8	$\text{k}\Omega$
Sensitivity	$s$	100.0	220.0	–	$\text{mV/Vbar}$
Output voltage	$V_{fin}$	30.0	66.0	–	mV
Offset voltage $P = P_0$	$V_0$	– 25	–	+ 25	mV
Linearity error (Best fit straight line) $P = P_0 \dots P_N$	$F_L$	–	$\pm 0.3$	$\pm 2.0$	$\% V_{fin}$
Pressure hysteresis $P_1 = P_0, P_2 = P_N, P_3 = P_0$	$P_H$	–	$\pm 0.1$	–	$\% V_{fin}$

## Electrical Characteristics

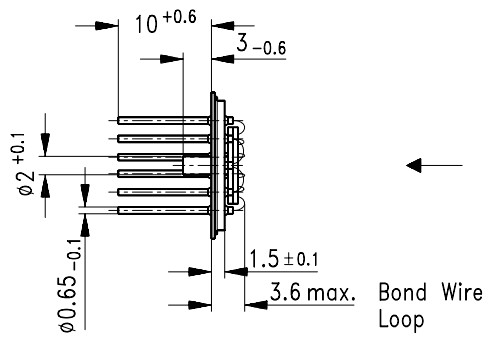
at  $T_1 = 25^{\circ}\text{C}$ ,  $T_2 = 125^{\circ}\text{C}$ ,  $T_3 = 25^{\circ}\text{C}$  and  $V_{IN} = 5\text{ V}$ , unless otherwise specified.

Parameter	Symbol	Limit Values			Unit
		min.	typ.	max.	
Temperature coefficient of $V_{fin}$	$TC_{V_{fin}}$	– 0.19	–	– 0.11	$\%/K$
Temperature coefficient of $V_0$	$TC_{V_0}$	– 0.06	–	+ 0.06	$\%/K$
Temperature coefficient of $R_B$	$TC_{R_B}$	–	+ 0.095	–	$\%/K$
Temperature hysteresis of $V_0, V_{fin}$	$TH$	– 0.7	–	+ 0.7	$\% v. V_{fin}$

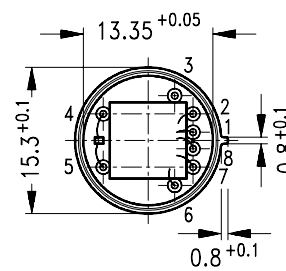
**Package Outline**

**Similar to TO-8**

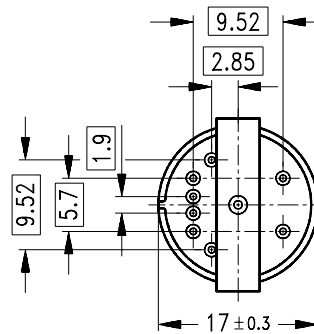
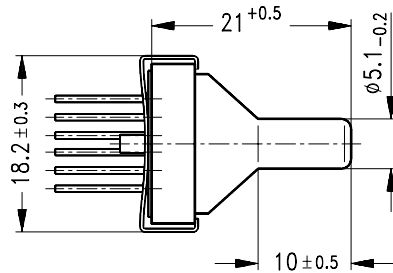
**Basic Component**



**View on Chip**



**Component Delivery Form**



GMT05798

Weight approx. 2.5 g

Dimensions in mm

**Exterior Packaging**

I.e. tubes, trays, boxes are shown in our Data Book "Package Information".