P14 – FemtoCap™
Capacitive Humidity Sensor

HUMIDITY

FLOW

TEMPERATURE

Product

Despite its very small construction size the FemtoCap has excellent sensor characteristics that are required in areas such as automobile and white goods. In combination with external electronics it offers excellent cost to performance ratio. The Femtocap is a cutting edge sensor solution. Currently it is the smallest discret capacitive humidity sensor with an unsurpassed cost to performance ratio.

Advantages

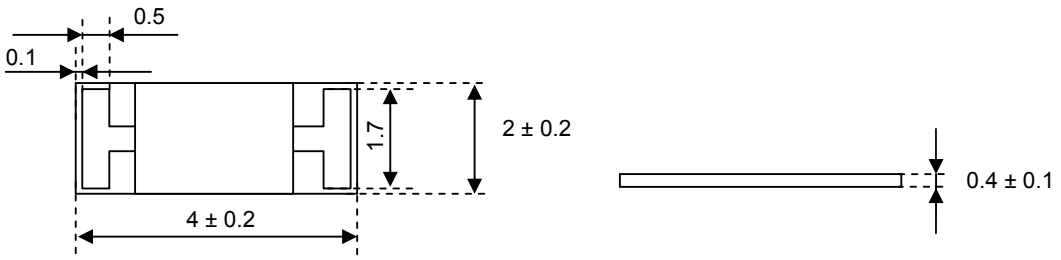
- Fully automated assembling
- Excellent long term stability
- Applicable in white goods, mobile phones, automotive
- High resistance to various chemicals
- Dewing resistant – fast recovering time after dewing, also at very high dewpoint temperatures
- Wide temperature range
- Excellent price/performance ratio
- Fast response time
- RoHs conform

Technical Data

Sensor Type:	P14 FemtoCap SMD
Measurement Principle:	Capacitive Polymer Humidity Sensor
Mechanical Dimensions:	W=2 x L=4 x H=0,38 mm
Humidity Operating Range:	0 ... 100% RH (max. dewpoint temperature = 80 deg C)
Operating Temperature Range:	-50 ... +150 deg C
Base Capacitance	180 pF ± 50 pF (at 23 deg C and 30% RH)
Sensitivity:	0,3 pF / %RH
Linearity:	< 1.5% RH (15 … 90% RH at 23 deg C, after one point calibration)
Hysteresis:	< 1,5% RH
Response Time T_{63}:	< 3 s (50% → 0% RH)
Frequency Range:	1 ... 100 KHz (recommend 10 KHz)
Maximum Operating Voltage:	< 12 Vpp AC
Signal Form:	alternating signal without DC bias
Contacts	SMD, backend compatible

Construction Size

Dimension in mm



INNOVATIVE SENSOR TECHNOLOGY

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