

# MW3827

Maintenance Products

2023/03/22

## Outline

The MW3827 is a combined relative humidity and temperature sensor module. The dual sensor is also combined with our custom analog front end to provide a fully calibrated and temperature compensated digitized I2C output. The MW3827 proprietary polymer and parallel plate capacitive structure provides excellent robustness and reliability. No complicated sensor drive or control circuit is required, and high performance sensing is achievable only with the MW3827 and an external microcontroller which works as a host.

## Application

Air conductor, refrigerator, dehumidification fan, heat exchanger, environmental monitoring, medical

## Features

- ① Small package: 2.0(W) × 2.0(D) × 0.8(H)mm
- ② Current consumption 8.97μA Typ. (@1sample/sec.)  
Current consumption at sleep 0.85μA Typ.
- ③ Output corrected humidity value with repeatability of 0.015%RH.
- ④ Equipped with a heater for checking operation
- ⑤ 8-bit I2C address 50h(Write), 51h(Read)

## Specifications

Operating supply voltage [V]	2.2~5.5
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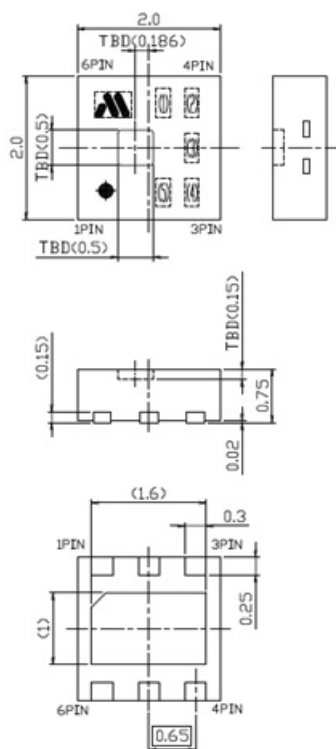
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Operating Temperature Range [deg.C]	-40~105
Operating pressure range [%RH]	0~100
Humidity Accuracy @25°C 50%RH. (typ.) [%RH]	±2
Temperature accuracy @25°C(MAX.) [°C]	±0.5
Response time [s]	6
Interface	I2C
Sensing principle	Capacitive
Humidity hysteresis [%RH]	±1

## Package



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## Package Size [mm]

2.0 × 2.0 × 0.8