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Integrated Silicon Pressure Sensor On-Chip Signal Conditioned, Temperature Compensated and Calibrated

The MPXT5006D series piezoresistive transducer is a state-of-the-art monolithic silicon pressure sensor designed for a wide range of applications, but particularly those employing a microcontroller or microprocessor with A/D inputs. This sensor combines a highly sensitive implanted strain gauge with advanced micromachining techniques, thin-film metallization, and bipolar processing to provide an accurate, high level analog output signal that is proportional to the applied pressure.

Features

- Temperature Compensated over 10° to 60°C
- Ideally Suited for Microprocessor or Microcontroller-Based Systems
- Available in Gauge Configurations

Advantages

- Low Pressure Sensing (0 to 0.87 psi) Range
- High Level Linear Output
- Accuracy 3% FSS

Ideally Suited for Commercial and Consumer Equipment i.e., Washing Machines/ HVAC Systems

Rugged Packaging Versatility

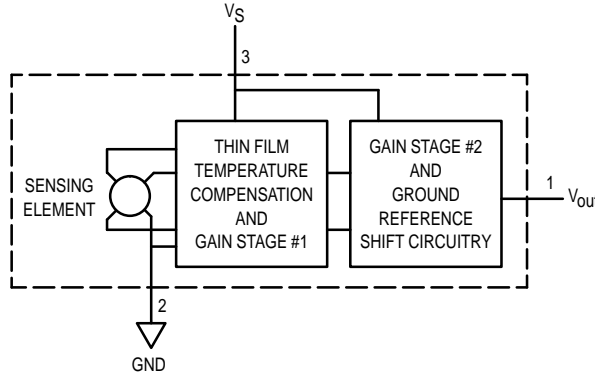
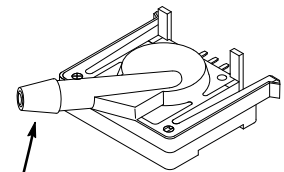


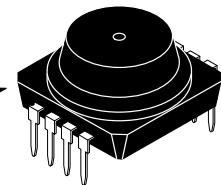
Figure 1. Fully Integrated Pressure Sensor Schematic

MPXT5006D SERIES

INTEGRATED PRESSURE SENSOR
 0 to 6 kPa (0 to 0.87 psi)
 0.2 to 4.7 V OUTPUT



SNAP PORT CASE 473B-01, STYLE 1



TOP PISTON FIT PACKAGE CASE 473A-01, STYLE 3

PIN NUMBER

1	V _{out}	3	V _S
2	Gnd	4	N/C

NOTE: Pin 4 is an internal device connection. Do not connect to external circuitry or ground. Pin 1 is noted by the notch in the Lead.

MAXIMUM RATINGS(1)

Parametrics	Symbol	Value	Unit
Overpressure(2) (P1 > P2)	P _{max}	10	kPa
Burst Pressure(2) (P1 > P2)	P _{burst}	60	kPa
Storage Temperature	T _{stg}	-30 to +100	°C
Operating Temperature	T _A	+10 to +60	°C

1. T_C = 25°C unless otherwise noted.

2. Exposure beyond the specified limits may cause permanent damage or degradation to the device.

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REV 1






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