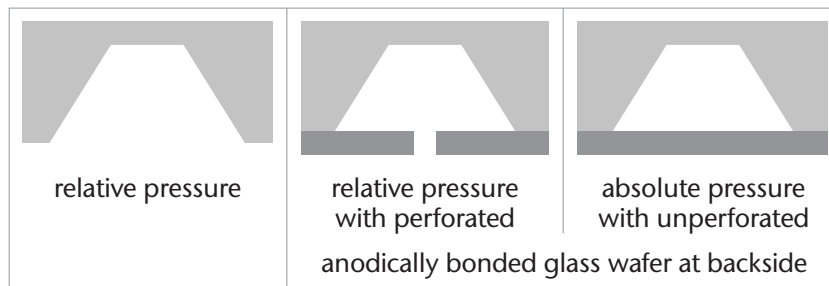
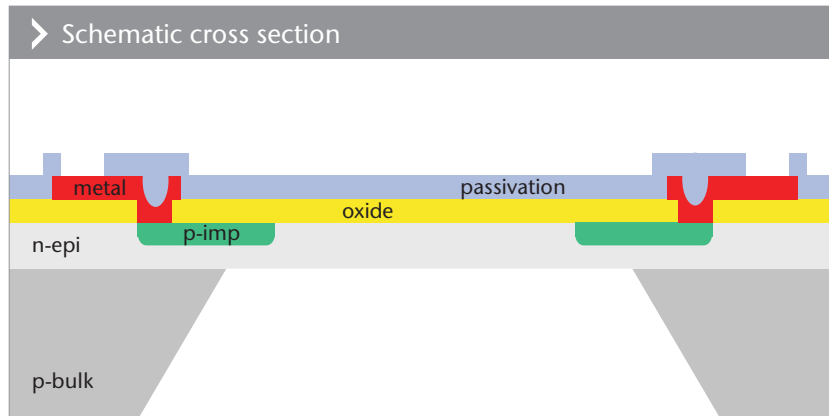


➤ Bulk Micromachining Technology for Discrete Relative and Absolute Pressure Sensors Process Family XMB30

XMB30 Technology



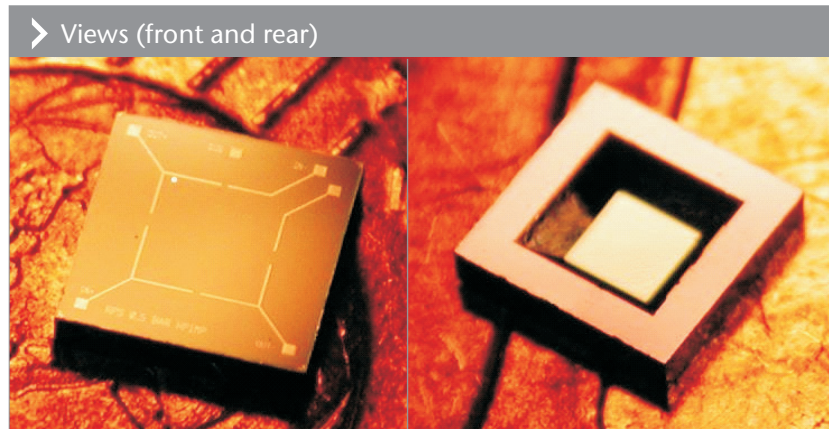
➤ Process for Discrete Sensors

- bulk micromachining technology, diaphragm fabricated by anisotropic silicon etching, electro-chemical etch stop for high diaphragm thickness homogeneity
- piezoresistive sensing
- substrate contact included

➤ Process Options for Discrete Sensors

- anodically bonded backside glass wafer for higher mechanical stability (relative/absolute pressure sensor types available)
- piezoresistor implantation for analog compensation (option "aco") of thermal drift
- high-dose implant for metal-free contact lines metal to piezoresistor

Discrete Pressure Sensor Dies



➤ Features of Discrete Sensors

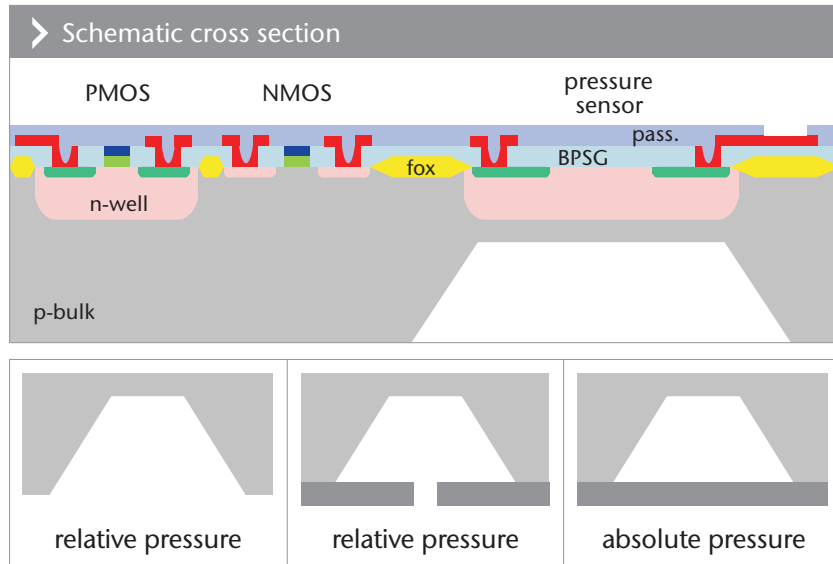
- relative (with/without glass) and absolute pressure sensors (with glass only)
- pressure ranges 0.1 ... 15 bar
- compact die size
- available as wafers or diced on tape
- customer specific sensors available on request

MEMS Process

> Bulk Micromachining Technology for Integrated Relative and Absolute Pressure Sensors

Based on Process Families XC10 and XH035

Process module for integration of pressure sensors into XC10 technology

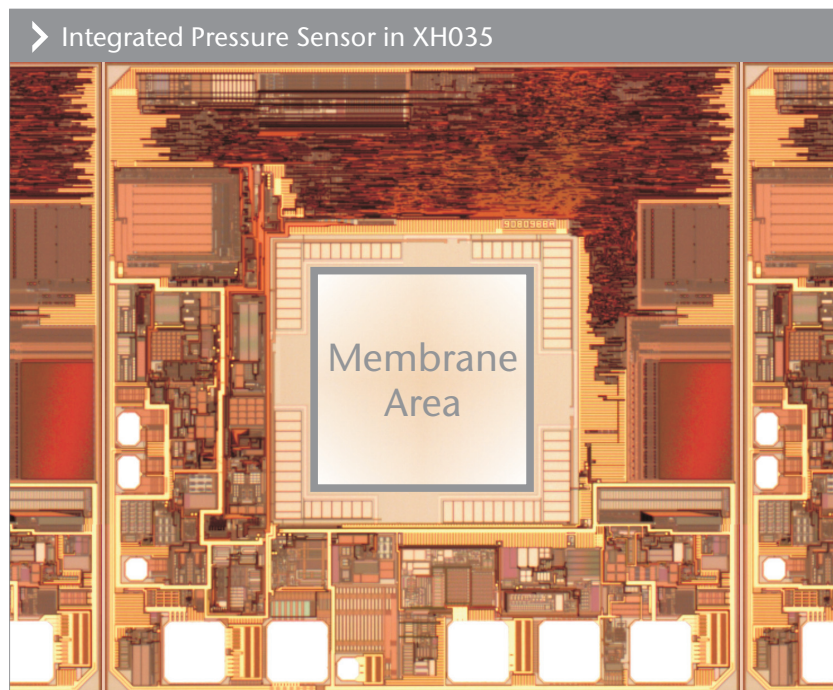


> Process for Integrated Sensors

- MEMS process module for XC10 CMOS
- all other CMOS process modules available
- diaphragm fabricated by anisotropic silicon etching
- only one additional mask required

> Process Options for Integrated Sensors

- anodically bonded backside glass wafer for higher mechanical stability (relative/absolute pressure sensor types)



> Features

- up to 4 metal layers in XH035
- up to 2 metal layers in XC10
- sensor IP cores for XC10 available (0.1 ... 15 bar)
- customer specific sensor cells on request
- compact IC design in XH035
- 8-inch wafer process in XH035
- minimum device thickness 400 μm



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