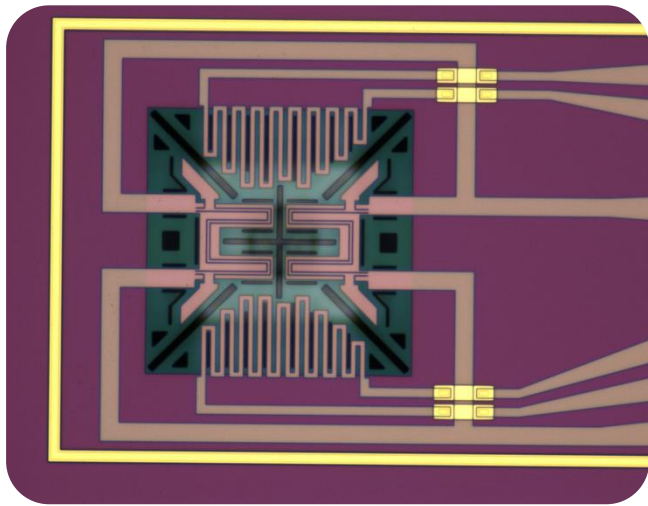
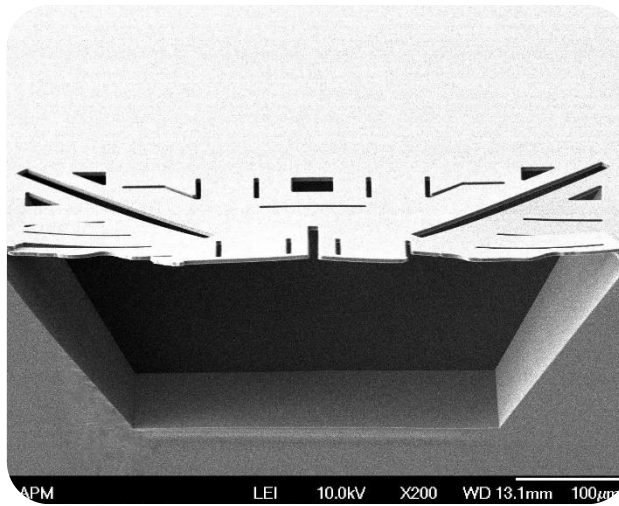


Process Platform: Thermal Isolation Devices

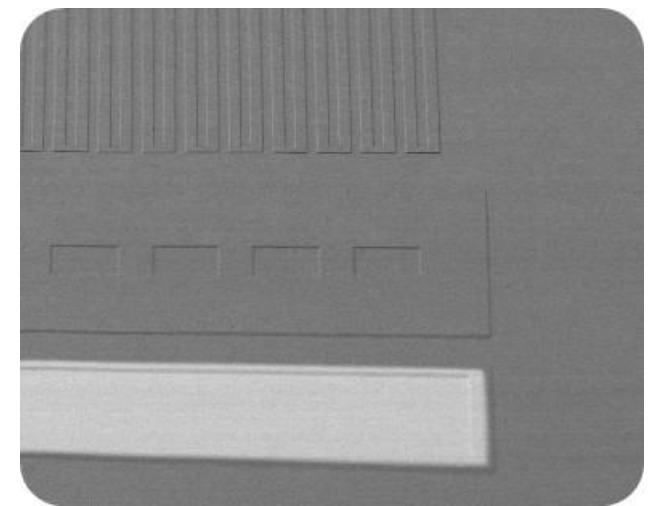
- Suitable for thermal isolation devices (Flow, Gas, Temperature, etc.)
- Suspended diaphragm for high-temperature operation (heater > 650°C)
- Integration of Pt heater & RTD or thermopile temperature sensor
- Small sensing area, less than 1.0 mm²



Flow sensor – top view



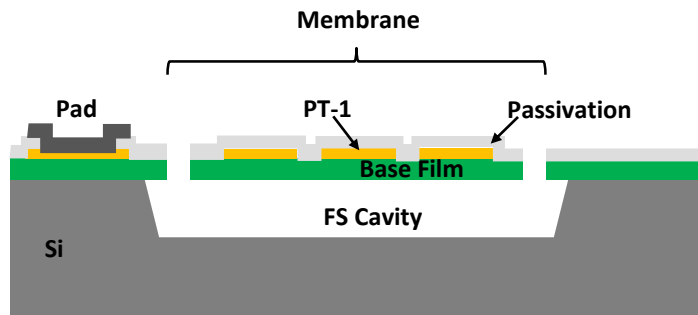
Flow sensor – side view



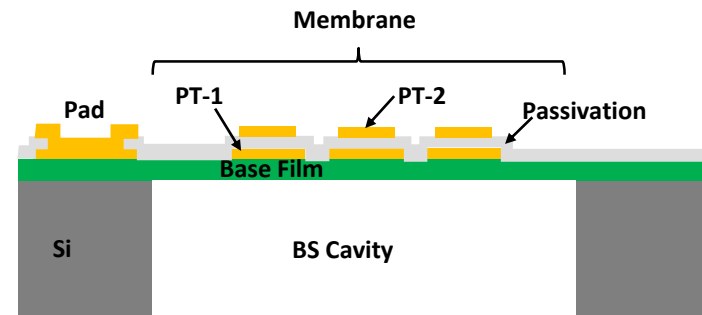
RTD – serpentine Pt wire

Process Platform: Thermal Isolation Devices

- Layout design comes from customer.
- Fixed process (film stacking and thickness) but adjustable Pt thickness ($\leq 2000\text{\AA}$)
- Reliable adhesion layer for Pt to base film & passivation
- Proper film composition with stress balance
- TCR of Pt heater/resistor: 2943 ppm ($35^{\circ}\text{C}\sim 95^{\circ}\text{C}$)



- TMAH for noble metal
- Modified TMAH for Al-based metal
(under developing)



- DRIE: through-hole etch
- Sidewall smoothing