IceMOS Technology

SOI Solutions

Applications

Our customised SOI solutions are used in the following fields:

- Advanced pressure sensors
- Accelerometers
- Gyroscopes
- Microfluidics/flow sensors
- RF MEMS
- MOEMs/Optical MEMs
- Optoelectronics
- Smart Power
- Advanced Analog ICs
- Microphones
- Luxury watches

End Markets:

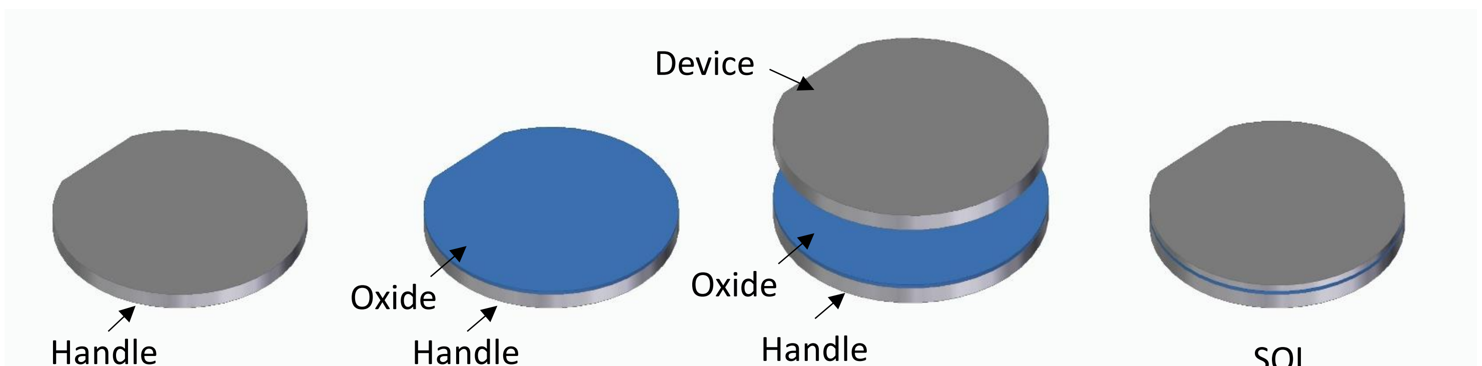
- Telecommunications
- Medical
- Automotive
- Consumer
- Instrumentation

IceMOS Technology is a leading supplier of 100-200mm thick-film Silicon on Insulator wafers for a large range of IC and MEMS applications. With over 20 years' experience in SOI manufacturing, we offer an impressive specification range, which is amongst the widest available in the market.

We have extensive experience in a variety of SOI substrates and our highly skilled applications engineering team is available to assist you to select the optimum combination of parameters for your requirements, ensuring that you receive the perfect custom SOI solution for your application.

By making continuous improvements to our processes in a Lean Six Sigma environment, IceMOS Technology offer world class product quality, competitive cost structure plus rapid turnaround makes IceMOS Technology your ideal SOI partner.

SOI Wafer with <1.5mm edge terrace



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"Cooler than Cool"™

SOI Specification

Parameter	Specification Range	
Wafer Diameter	100, 125, 150 mm	200 mm
Handle Layer Specifications		
Handle Thickness	200–1100 μm	450–1100 μm
Handle Thickness Tolerance	±5 μm	
Stack Thickness	280–1150 μm	
Dopant Type	N or P	
Doping	N type: Phos, Red Phos, Sb & As P type: Boron	
Resistivity	≤0.001 – ≥10000 Ω–cm	
Growth Method	CZ, MCZ or FZ	
Crystal Orientation	<100>, <111> or <110>	
Backside Finish	Lapped/Etched or Polished	
Buried Oxide Specifications		
Thermally Oxidised Buried Oxide Thickness	0.2 – 4.0 μm grown on Handle, Device or both wafers	
Device Layer Specifications		
Device Layer Thickness	≥1.5 μm	≥5 μm
Tolerance	± 0.5 μm	±0.8 μm
Dopant Type	N or P	
Doping	N type: Phos, Red Phos, Sb & As P type: Boron	
Resistivity	≤0.001 – ≥10000 Ω–cm	
Growth Method	CZ, MCZ or FZ	
Crystal Orientation	<100>, <111> or <110>	
Buried Layer Implant	N type or P type	

The above is a standard IceMOS specification; however, we are always happy to work with our customers to engineer specific solutions. If you would like to discuss an alternative specification, please contact our sales team: sales@icemostech.com