

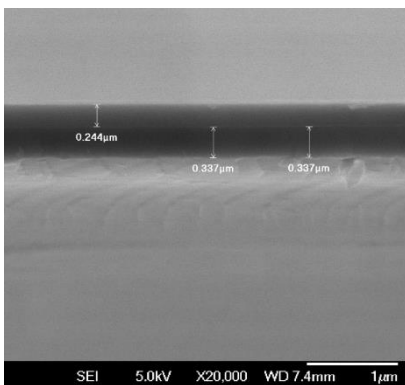
Applications

Our customised Thin-SOI solutions are suitable for the following fields:

- RF Filters
- Optoelectronics
- Image Sensing
- Wireless Connectivity
- Flexible-Hybrid Electronics
- RF MEMS

End Markets:

- Telecommunications
- Consumer
- Power
- Medical

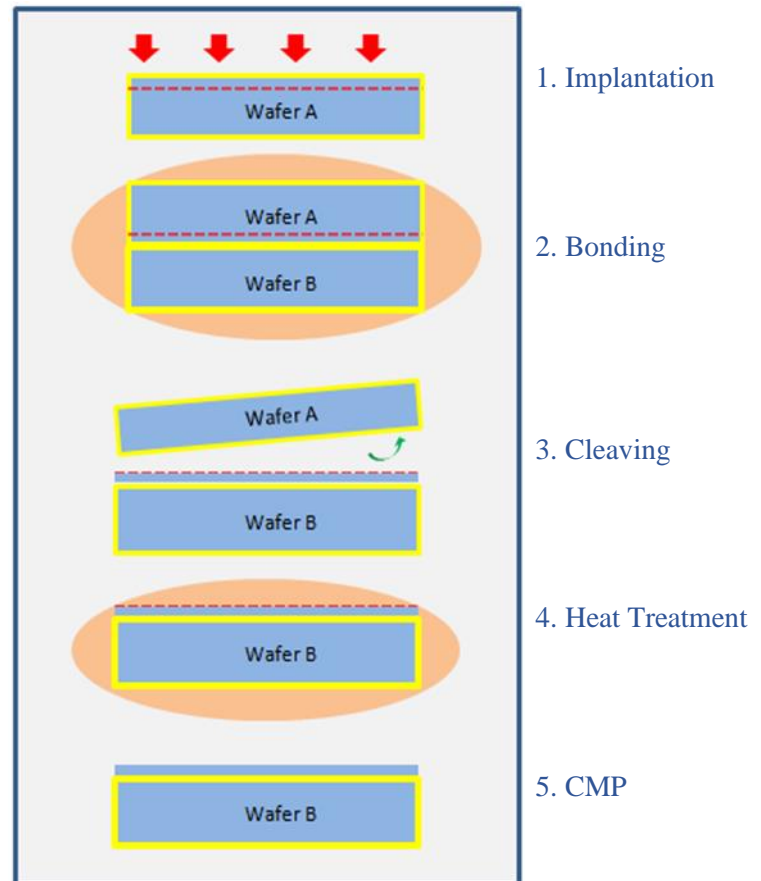


SEM image of IceMOS 245nm Thin-SOI Wafer

IceMOS Technology has developed and is offering a Thin-SOI wafer range with device layers <math>< 1\mu\text{m}</math>. Building on the 20+ years of SOI manufacturing experience, IceMOS is offering the same high-quality product as our existing Thick-SOI wafers for RF Applications.

With the wide range of specifications for both silicon wafers and the thermally grown Buried Oxide Layer, the IceMOS Thin-SOI wafer range covers applications such as Silicon Photonics to SAW filters.

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.



Thin-SOI Specification

Parameter	Specification Range
Wafer Diameter	100 – 200 mm
<i>Handle Layer Specifications</i>	
Dopant Type	N or P
Doping	N type: Phos, Sb & As P type: Boron
Resistivity	$\leq 0.001 - \geq 10000 \Omega\text{-cm}$
Growth Method	CZ, MCZ or FZ
<i>Buried Oxide Specifications</i>	
Thermally Oxidised Buried Oxide Thickness	0.1 μm – 3 μm grown on Device or both wafers
Buried Oxide Uniformity	$\pm 5\%$
<i>Device Layer Specifications</i>	
Device Layer Thickness	0.1 μm – 1 μm
Device Layer Uniformity	$\pm 20\text{nm}$
Dopant Type	N or P
Doping	N type: Phos, Sb & As P type: Boron
Resistivity	$\leq 0.001 - \geq 10000 \Omega\text{-cm}$
Growth Method	CZ, MCZ or FZ
Crystal Orientation	$\langle 100 \rangle$, $\langle 111 \rangle$ or $\langle 110 \rangle$

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