



Silicon Crystal & Compound Semiconductor

➤ Silicon-on-insulator (SOI)

Silicon-on-insulator (SOI) 6" 8", adopts silicon-oxide-silicon advanced technology contains major steps such as, oxygen implantation, cleaning, bonding, annealing and polishing, by which it is allowed to provide a greater performance during IC components design and manufacturing, because of lower stray capacity, temperature dependency or leakage currents, but a much higher latchup resistance, power efficiency and a more stable radiation frequency. Device layer up to 100 micrometer thickness is available.



No.	Items		Standard Specifications			
1	General	Grade	TM	TM+EPI	Bonding	Cavity
		Size	8"	8"	6" 8"	6" 8"
		Diameter mm	200	200	150 or 200	150 or 200
		Orientation	<100> <110> <111>			
2	Device Layer	Growth Method	CZ or FZ	CZ or FZ	CZ or FZ	CZ or FZ
		Conductivity	P/N	P/N	P/N	P/N
		Resistivity $\Omega\cdot\text{cm}$	As required			
		Thickness μm	0.07-0.5	1.2-5	1.5-100	1.5-100
		Thickness Uniformity μm	± 0.01	± 0.1	± 0.3	± 0.3
		Surface Roughness nm	<0.2 (RMS, measured by AFM)			
		Light Point Defect	<20ea, at 0.2 μm			
3	Buried Oxide Layer	Metals Contamination	5E10 (Na, Al, Ni, Cr, Fe, Cu, Zn, Ca) a/cm ³ max			
		Thermally Thickness μm	0.02-3	0.02-3	0.02-3	0.02-3
4	Handle Substrate	Thickness Uniformity	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$
		Growth Method	CZ or FZ	CZ or FZ	CZ or FZ	CZ or FZ
		Conductivity Type	P/N	P/N	P/N	P/N
		Resistivity $\Omega\cdot\text{cm}$	As required			
5	Packing	Thickness μm	As required			
		Cassette inside, carton box outside				