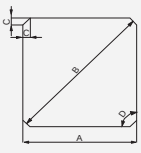
The file version	202406

Conductivity type	N-type	PN testing machine
Dopant	Phos.( )	/
Resistivity/Ω·cm	0.6-1.6	Wafer inspection system
Lifetime/μs	⩾800	BCT-400
Oxygen concentration/ppma	⩽12	FTIR (ASTM F121-83)
Carbon Concentration /ppma	⩽1	FTIR (ASTM F123-91)

Growth method	CZ	/
Crystallinity	Monocrystalline	/
Etch pit density (dislocation density)/pcs/cm²	⩽500	Preferential Etch Techniques(ASTM F47-88)
Surface orientation/°	<100>±3	X-ray Diffraction Method
Orientation of pseudo square sides/°	<010>, <001>±3	X-ray Diffraction Method

Wafer model	G12-R	/
Geometry	Quasi square	/
Bevel edge shape	Round	/
Wafer Side length/mm	182.3/210±0.25	AOI
Wafer Diameter/mm	272±0.25	AOI
Arc length projection/mm	4.72/4.07±0.5	AOI
Angle between adjacent sides/°	90±0.15	AOI
Thickness/μm	130/135/140±10	AOI
Batch mean/μm	⩾130/135/140	AOI
TTV/μm	⩽25	AOI
Saw Mark/μm	⩽15	AOI
Bow/μm	⩽40	AOI
Warpage/μm	⩽40	AOI
Cutting method	DW	/
Surface quality	No visual defects (no stains no finger prints no oil no glue). No color difference, No bright line	AOI
Chipping	Depth⩽0.3 mm , Length ⩽0.5 mm Count ⩽ 2 /pcs, no V-chip	Naked eyes or wafer inspection system
Micro cracks / holes	None	AOI
Schematic diagram of wafer size		A.Shape/Size 182.3/210±0.25 mm B.Diagonal 272±0.25 mm C.Corner Length 4.72/4.07±0.5 mm D.Right Angle 90±0.15°