

P-type Wafer

QUALITY SYSTEM

ISO 9001 ISO 14001

ISO 45001 ISO 50001 GB/T29490

Pioneer in China solar monocrystalline field

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Geometry

Property	Index					Testing Tools	Inspection Method
Silicon wafer model	182*182	182.2*182.2	182*183.75	182.2*210	210*210		
Wafer Side Length (mm)	182±0.25	182.2±0.25	182±0.25 183.75±0.25	182.2±0.25 210±0.25	210±0.25	Automatic Sorting Machine	Wafer Inspection System
Wafer Diameter (mm)	247±0.25	247±0.25	256±0.25	272±0.25	295±0.25		
Angle Etween Adjacent Sides (mm)	90° ± 0.15°						
Thickness	Batch Ave : ≥ Thickness Thickness (150μm) Uniwafer Ave : Thickness±10μm						
TTV(Total Thickness Variation)	≤ 25 μm						

Material Properties

Property	Index					Testing Tools	Inspection Method
Silicon wafer model	182*182	182.2*182.2	182*183.75	182.2*210	210*210		
Oxygen Concentration[Oi]	≤ 15 ppma					6700-FTIR Transform Infrared Spectrometer	GBT 1557-2006
Carbon Concentration[Cs]	≤ 1 ppma						GBT 1558-2009
Etch Pit Density(Dislocation Density)	≤ 500cm ⁻²					Surface Defect Inspection Lamp	Preferential Etch Tehniques (ASTM F47-88)
Surface Orientation	< 100 > ± 3°					X-ray Diffraction Methode(ASTM F26-1987)	GBT 1555-1997
Resistivity	0.4 ~ 1.1 Ω·cm					Automatic Sorting Machine	Wafer Inspection System
Minority Carrier Lifetime	≥ 70 μs					Analyzer BCT-40	Transient

Surface Properties

Property	Index					Testing Tools	Inspection Method
Silicon wafer model	182*182	182.2*182.2	182*183.75	182.2*210	210*210		
Surface Quality	No stain ; No Breakages,Pin-holes and impurities ; No scratch;No scratch on the edge					Automatic Sorting Machine	Wafer Inspection System
Saw Marks	Saw marks≤13 μm ;						
Bow	≤ 40 μm						
Chip	Depth ≤ 0.3mm *Length ≤0.5mm. ≤1 / pc , NoV-Chip						
Bright Edge	Not allowed						
Micro Cracks	Not allowed						
Holes	Not allowed						

