




KEY FEATURES

-  Low Oxygen Large Heat Field Process
-  High-efficiency wafers that match customers' differentiated needs
-  Adequate capacity reserves

Material properties

Item(unit)	Specification	Inspection method
Conductivity Type	N	PN testing machine
Dopant	Phosphorus	/
Crystallinity	Monocrystalline	Preferential etch techniques (ASTM F47-88)
Etch pit density (dislocation density)	≤500cm ⁻²	Preferential etch techniques (ASTM F47-88)
Surface orientation	<100>±3°	X-ray diffraction method
Side orientation	<010>, <001>±3°	X-ray diffraction method
Oxygen contents (ppma)	≤12	FTIR (ASTM F121-83)
Carbon contents (ppma)	≤1	FTIR (ASTM F123-91)

Electrical properties

Item(unit)	Specification	Inspection method
Lifetime (μs)	≥800	BCT-400
Resistivity(Ω. cm)	0.3-2.1	Automatic sorting machine

Rule of geometry properties

Item(unit)	Specification	Inspection method
Geometry	Quasi square	/
Bevel edge shape	Round	/
Square length (mm)	182±0.25mm	Automatic sorting machine
Diagonal length (mm)	247±0.25mm	Automatic sorting machine
Chamfer length projection (mm)	7.51±0.5mm	Automatic sorting machine
Verticality	90±0.15°	Automatic sorting machine
Thickness (μm)	130 + 10/ - 10	Automatic sorting machine
	135 + 10/ - 10	Automatic sorting machine

Appearance Quality

Item(unit)	Specification	Inspection method
Surface quality	No visual defects	Automatic sorting machine
	No color difference, No bright line	
Chipping	Depth≤0.3mm , Length ≤0.5mm; Count ≤ 2/pcs, no V-chip	Automatic sorting machine
Saw mark(μm)	≤15	Automatic sorting machine
Warpage (μm)	≤40	Automatic sorting machine
TTV (μm)	≤25	Automatic sorting machine
Micro cracks / Holes	None	Automatic sorting machine
Unfilled corner	None	Automatic sorting machine