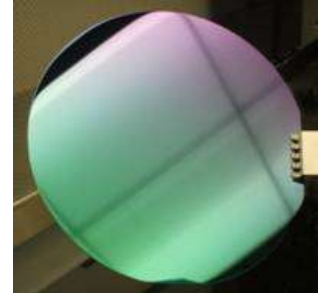


DATA SHEET – 1 INCH SILICON WAFER

Orientation

On standard:
(100) (111) (110)

On request:
(211) (311) (411) (511) (711) (911)
(210) (310) (510) (910)
(531) (731)



Standard Tolerance: $\pm 0.5^\circ$, on request: $\pm 0.02^\circ$

OFF Cut

Compared to ON axis (100), (111), (110), (112): Up to $14^\circ \pm 0.02^\circ$

Type

P-type: Boron

N-type: Phosphorus, Arsenic, Antimony

Undoped

Resistivity

Cz: from $1\text{m}\Omega\cdot\text{cm}$ to $150\ \Omega\cdot\text{cm}$

FZ: up to $10\text{k}\ \Omega\cdot\text{cm}$

Intrinsic: $> 200\ \Omega\cdot\text{cm}$

General specifications

Standard Diameter: 1 inch (25.4mm) $\pm 0.1\ \text{mm}$

Standard Thickness: $250\ \mu\text{m} \pm 15\ \mu\text{m}$

Standard TTV: $< 10\ \mu\text{m}$

TTV min SSP: $5\ \mu\text{m}$

TTV min DSP: $5\ \mu\text{m}$

Maximum Thickness: 10 mm

Particle count: 10 – 25

Bow: $20\ \mu\text{m}$

Roughness: On polished surface: $< 1\ \text{nm}$

Flatness: On polished surface: $< 1\ \mu\text{m}$

DATA SHEET – 1 INCH SILICON WAFER

Laser marking

On Request

Thermal Oxidation

Oxidation type	Thickness	Tolerance
Wet oxidation	200 – 3000 nm	±10 %
Standard dry oxidation	15 – 100 nm	±5 %
High purity dry oxidation	20 – 350 nm	±5 %

Option: Only front side oxidation

Single layer deposition / metallization

Layer	Method	Thickness	Tolerance
Silicon nitride	LPCVD	200 – 500 nm	±5 %
	PECVD		
Oxide nitride	PECVD		
Polysilicon	LPCVD	200 – 600 nm	±8 %
Cr, Ti, Au, Al, Pt, Mo, W	PVD	200 – 1000 nm Depending on metals	±10 %
Highly reflective silver coating	sputtering		
Ni, Cu, Ir, Ta, Al ₂ O ₃	evaporation		
Cr/Au TiW with Ti : 10% W : 90% TiW /Au with Ti : 10% W : 90% Ti/Pt	PVD		

Multi layers deposition

On Request

Example:

