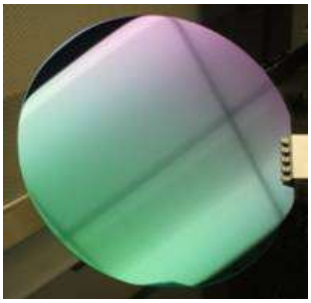
DATA SHEET – 3 INCH SILICON WAFER



Orientation

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

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

Standard Tolerance: ± 0.5°, on request: ± 0.02°

OFF Cut

Compared to ON axis (100), (111), (110), (112): Up to 14° ± 0.02°

Type

P-type: Boron

N-type: Phosphorus, Arsenic, Antimony

Undoped

Resistivity

Cz: from 1mΩ.cm to 150 Ω.cm

FZ: up to 10k Ω.cm

Intrinsic: > 200 Ω.cm

General specifications

Standard Diameter: 3 inch (76.2mm) ±0.2 mm

Standard Thickness: 380 µm ±25 µm

Standard TTV: <10 µm

TTV min SSP: 5 µm

TTV min DSP: 3 µm

Maximum Thickness: 10 mm

Particle count: 10 – 25

Bow: 30 µm

Roughness: On polished surface: < 1nm

Flatness: On polished surface: < 1um

Laser marking

On Request

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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: Single face oxidation (photolithography)

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 Highly reflective silver coating	PVD sputtering	200 – 1000 nm Depending on metals	±10 %
Ni, Cu, Ir, Ta, Al2O3	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: