

Mono-Crystalline Silicon Wafer Specification

Wafer Specification

NO	Items	Specifications	UNITS
1	Growing Method	Czochralski Crystal Growth	
2	Material	Monocrystalline Silicon	
3	Type & Dopant	P/B	
4	Wafer Size	156*156±0.5mm	mm
5	Diameter	200±0.5 220±0.5	mm
6	Perpendicularity	90±0.3	°
7	Thickness	200±20	μm
8	TTV(5 points)	≤ 30	μm
9	Resistivity	P/B:1~3, 3~6	Ω·cm
10	Minority Carrier Lifetime	≥ 10(μ-PCD,ASTM F 1535)	μs
11	Orientation	<100> ±2.0	°
12	Dislocation Density	≤ 3000	pcs/cm ²
13	Oxygen Concentration	≤ 1*10 ¹⁸ (ASTMF121-83)	atoms/cm ³
14	Carbon Concentration	≤ 5*10 ¹⁶ (ASTMF123-83)	atoms/cm ³
15	Chips	None with a length > 0.5mm or a depth > 0.3mm max.2 chips per wafer	
16	Contamination/Stain	None	
17	Saw Mark	Depth≤ 15μm	μm
18	Bow/Warpage	≤ 30	μm

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Wafer	Dimension(mm)							
	A		B		C		D	
	Max	Min	Max	Min	Max	Min	Max	Min
156 S	156.5	155.5	200.5	199.5	126	124	23	21
156 SL	156.5	155.5	220.5	219.5	156.5	155.5	2	0.5

Figure 1

