Synlight 200mm N-Type SiC Ingot Substrate Specification

Parameter	Unit		Specification Value		Remark
Grade		**Production Grade for MOS**	**Production Grade for SBD**	**Dummy Grade**	
Diameter	mm	200±0.2		200±0.5	
Thickness	mm	≥10mm		≥8mm	
Polytype		4H-SiC			
SurfaceOrientation		4.0° toward<11`20>±0.5°		N/A	
Dopant		Nitrogen			
Resistivity	Ω·cm	0.015~0.028		0.012-0.028	
Primary Flat Orientation		{10 -10}±1.0°		{10 -10}±5.0°	
Primary Flat Length	mm	Notch			
Secondary Flat Length		None			
Micropipe Density	cm^{-2}	≤0.2	≤0.5	≤1	Both wafers from seed and dome side satisfy this value
TED	cm^{-2}	< 3000	< 6000	< 10000	KOH etching / Average value of wafers from seed and dome side
BPD	cm^{-2}	<1500	<1500	<3000	KOH etching / Average value of wafers from seed and dome side
TSD	cm^{-2}	<200	< 500	< 3000	KOH etching / Average value of wafers from seed and dome side

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Parameter	Unit		Specification Value		Remark
TSD	cm^{-2}	<200	< 500	< 3000	KOH etching / Average value of wafers from seed and dome side
Foreign Polytypes*		None		≤5mm²	
的Polycrystal*		None		≤5mm²	
Hex Plates by High Intensity Light*		None		≤10	
Pinholes	number	None		N/A	
Cracks*	number	None		≤3mm	
EdgeChips	number	None		≤0.5mm	
Marking		Laser marking on Si-face			
*Defects limits apply to entire wafer surface including the edge exclusion area. Product with other specifications can be customized.					

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