Semiconductor	SiC
Polytype	4H
Diameter	150 mm

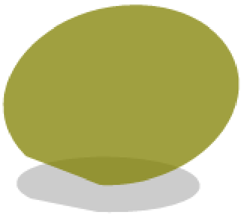

Table 1. SUBSTRATE Specifications

Parameter	Specification	Unit	Test Method
Poly-Type	4H-N-type		
Crystal Orientation	4.0° towards <11$\bar{2}$0> ± 0.5°		
Dopant	Nitrogen		
Dopant Type	N-type		
Polarity of Faces	Optical polish: Carbon face CMP: Si face ready for EPI		
Nominal Diameter	150±0.25	mm	
Resistivity	0.02±0.005	Ωcm	
Primary Flat Length	47.5±2.5	mm	
Primary Flat Location	with flat parallel to <11$\bar{2}$0> direction±5°	deg	
Thickness	350±25	µm	
Total Thickness Variation (TTV)	≤10	µm	
Warp	≤40	µm	
Bow	±25	µm	
Local Thickness Variation (LTV)	≤3.5	µm	10mm×10mm site size, by FRT
TUA (Total Usable Area) Based on a 3X3mm Die Grid	⩾92.0	%	3mm×3mm Die Grid By Candela
Micropipe Density (MPD)	⩽0.5	cm^{-2}	By Candela
BPD(Basal Plane Dislocation)	⩽5000	cm^{-2}	KOH etching
TSD(Threading Screw Dislocation)	⩽300	cm^{-2}	KOH etching
Scratch Length	⩽150	mm	Cumulative length per wafer By Candela
Foreign Poly Types	0	%	0 within the Fixed Quality Area,
Stains	⩽2*2	cm^2	Backside stain inspection by bright light
Edge Chips	None greater than 0.5 mm width or depth.	Boolean	Inspection performed using unaided eye under bright light.
Surface Roughness	Less than 1nm within the FQA	nm	area 5 um x 5 um By AFM
Surface Metal Contamination	5E11	Atoms /cm^2	Na,K,Ca,Fe,Ni,Cu,Zn,Au,Ag,Al,Ga,Hg,As,Pt

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