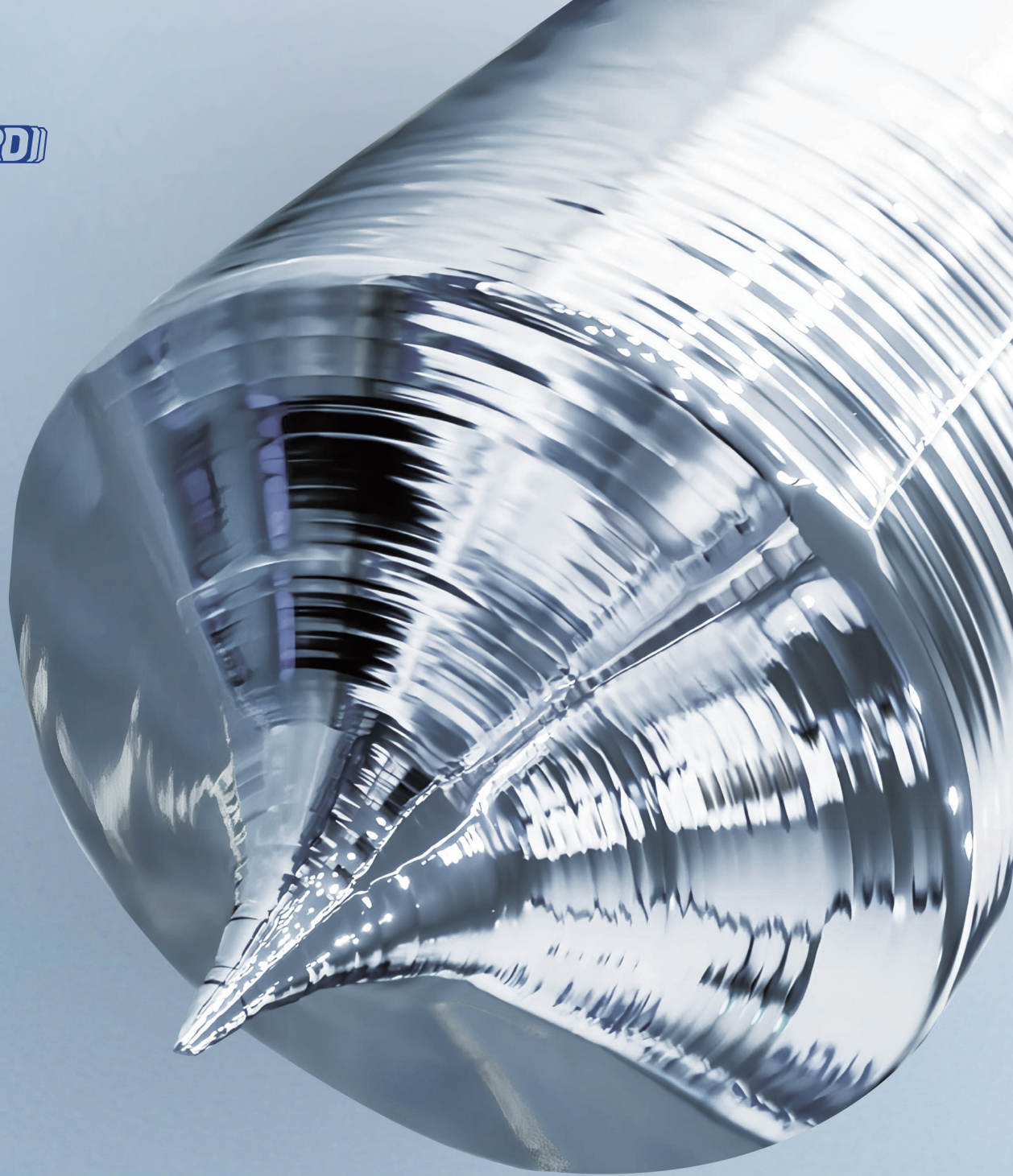


PTSTANDARD



Mono Silicon Rot

Data Sheet

N-Type 210*182±0.25mm

PT.Standard Energy Indonesia

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Web www.ptstdard-energy.com

Material Performance Parameters

Conductivity Type	N	P/N type tester
Doped element	Phosphorus	/
Crystallinity	Single crystal	Priority etching technology (FSTM F47-88)
Etch pit density (dislocation density)/pcs/cm ²	≤500	Priority etching technology (FSTM F47-88)
Surface orientation	<100>±3°	X-ray diffractometer
Lateral crystal orientation	<010>, <001>±3°	X-ray diffractometer
Oxygen content (ppma)	≤11	FTIR (ASTM F121-83)
Carbon content (ppma)	≤1	FTIR (ASTM F123-91)
Lifetime (μs)	≥1000	BCT-400
Resistivity (Ω.cm)	0.6-1.6	Portable four-probe resistance meter

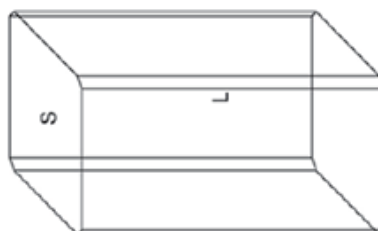
Geometric Rule Parameters

Chamfered edge shape	Right angle	/
Geometrical margin (mm)	210*182±0.25	Manual measurement, tool: caliper
Diameter (mm)	φ272±0.25	Manual measurement, tool: caliper
Arc length projection (mm)	4.57/3.93±0.5	Manual measurement, tool: chamfer gauge
Perpendicularity	90±0.15°	Manual measurement, tools: right-angle ruler, feeler gauge
Batch Length (mm)	200-900	Manual measurement, measuring tool: straight ruler

Appearance Quality

	The surface of the crystal rod shall be smooth and bright, free of twins, contamination, holes, color difference, black spots, and water stains residue.	Manual measurement, measuring tool: surface roughness tester
Surface quality	Surface camber ≤ 0.1mm; surface roughness: Ra ≤ 0.2μm; arc roughness: Ra ≤ 0.2μm.	
	The end face slope ≤1mm Chipping at both ends ≤1.5mm Collapse length at both ends ≤1.5mm	Manual measurement, measuring tool: straight ruler

Dimensions



L: 200-900 mm