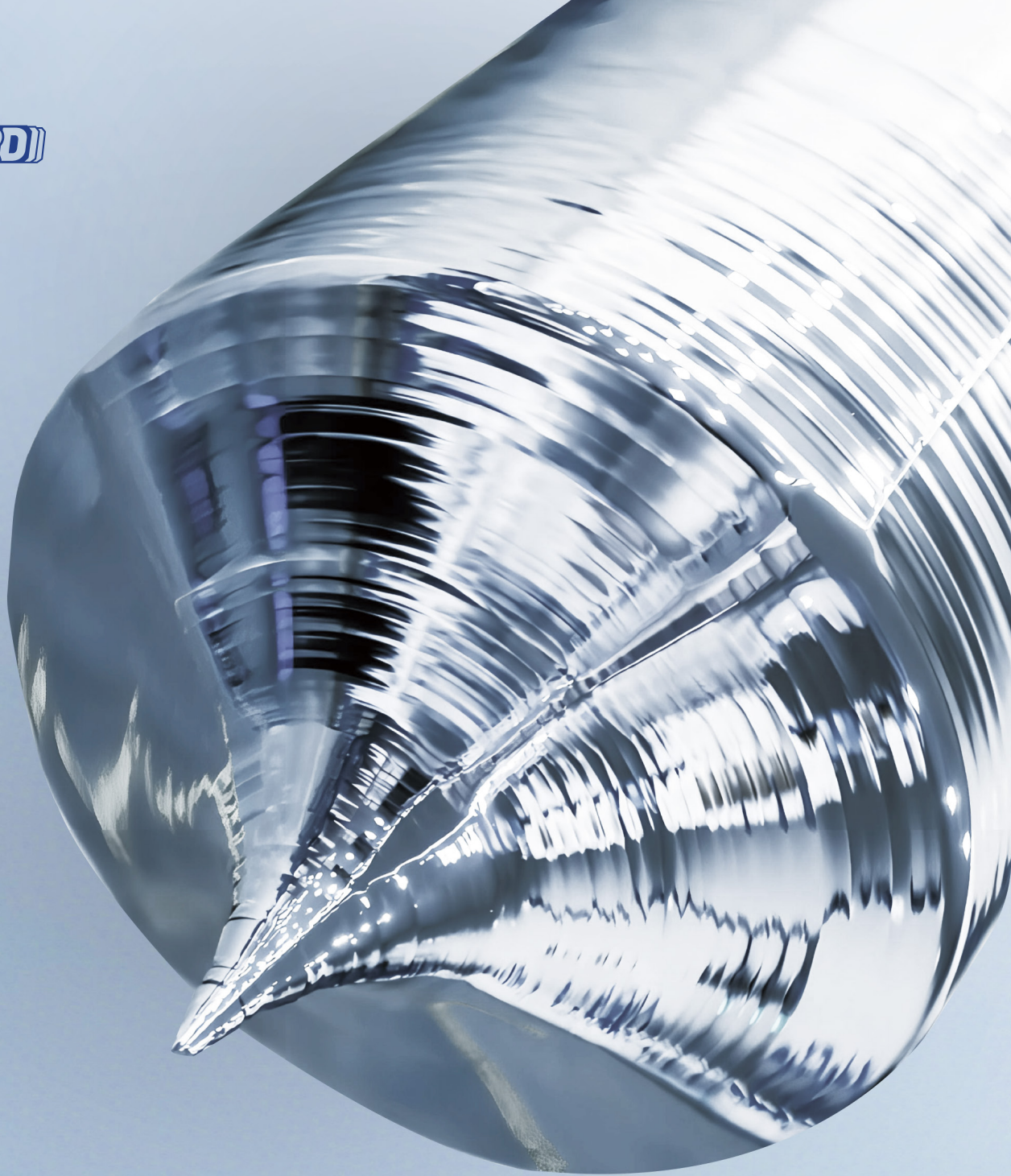


**PTSTANDARD**



# Mono Silicon Rot

Data Sheet

**N-Type** / **182±0.25mm**

PT.Standard Energy Indonesia

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Web [www.ptstdard-energy.com](http://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 <sup>2</sup>	≤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

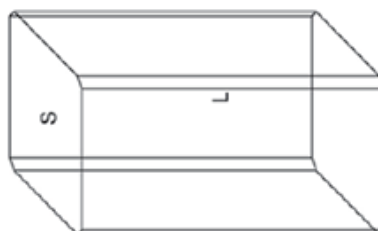
### Geometric Rule Parameters

Chamfered edge shape	Circular arc angle	/
Geometrical margin (mm)	182±0.25	Manual measurement, tool: caliper
Diameter (mm)	φ247±0.25	Manual measurement, tool: caliper
Arc length projection (mm)	7.51±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