

Ge(Germanium) Single Crystals and Wafers

General Properties

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|-------------------------------------|---|--------------------------------------|--------------------------------------|
| General Properties Structure | Cubic, a = 5.6754 Å Density: 5.765 g/cm ³ Melting Point: 937.4 °C Thermal Conductivity: 640 | | |
| Crystal Growth Technology | Czochralski | | |
| Doping available | Undoped | Sb Doping | Doping In or Ga |
| Conductive Type | / | N | P |
| Resistivity, cm⁻¹ | >35 | < 0.05 | 0.05 - 0.1 |
| EPD | < 4x10 ³ /cm ² | < 4x10 ³ /cm ² | < 4x10 ³ /cm ² |

Crystal Grades and Application

| | |
|--|-----------------------------------|
| (please specify when you order) Electronic Grade | Used for diodes and transistors |
| Infrared Grade | Used for IR optical window |
| Cell Grade | Used for substrates of solar cell |

Standard Specs of Ge Crystal and wafers

| | | | | |
|---|--|----------|----------|-------------|
| Crystal Orientation | <111>,<100> and <110> ± 0.5° or custom orientation | | | |
| Crystal boule as grown | 1" ~ 5" diameter x 200 mm Length | | | |
| Standard blank as cut | 1"x 0.5mm | 2"x0.6mm | 4"x0.7mm | 5"&6"x0.8mm |
| Standard Polished wafer(One/two sides polished) | 1"x 0.30 mm | 2"x0.5mm | 4"x0.5mm | 5"&6"x0.6mm |

Special size and orientation are available upon requested Wafers