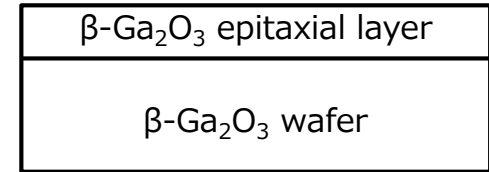


Standard specifications of $\Phi 4$ inch HVPE β -Ga₂O₃ epitaxial wafer

Epitaxial layer (Growth method: HVPE)

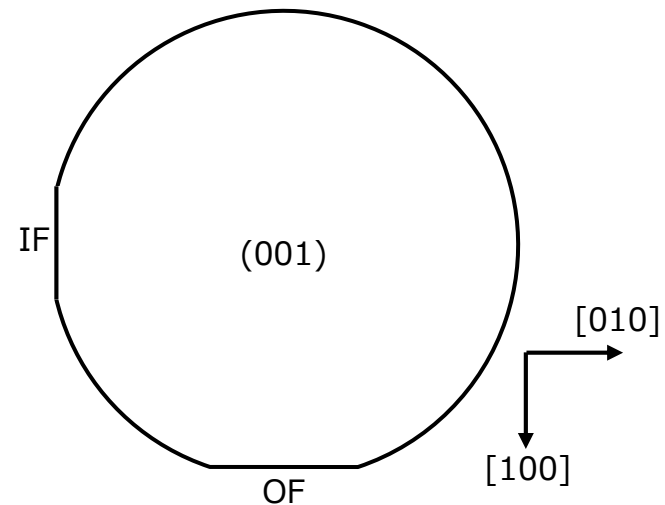
| Property | Specification |
|----------------------|---|
| Dopant | Si (n-type) |
| Doping concentration | $2 \times 10^{16} \text{ cm}^{-3}$ |
| Thickness | Specify a value in the range between 5 and 10 μm |



Cross section of β -Ga₂O₃ epitaxial wafer

Wafer

| Property | Specification |
|----------------------|--|
| Dopant | Sn (n-type) |
| Doping concentration | $1 \times 10^{18} \sim 2 \times 10^{19} \text{ cm}^{-3}$ |
| Orientation | (001) |
| Size | $\Phi 4$ inch |
| Thickness | 0.65 mm |
| XRD FWHM | $\leq 350 \text{ arcsec}$ |
| Off set angle | $0^\circ \pm 1^\circ$ |



Orientation



Novel Crystal Technology, Inc.

2020.5.7

Remarks

- 1 These products must be used for research and development purposes only.
- 2 The substrates must not be used as a seed crystal.
- 3 The specifications are subject to change without notice.

Standard specifications of $\Phi 2$ inch HVPE β -Ga₂O₃ epitaxial wafer

Epitaxial layer (Growth method: HVPE)

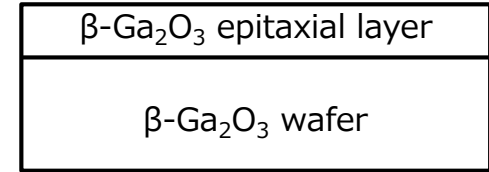
| Property | Specification |
|----------------------|--|
| Dopant | Si (n-type) |
| Doping concentration | Specify a value in the range between 2×10^{16} and $9 \times 10^{16} \text{ cm}^{-3}$ |
| Thickness | Specify a value in the range between 5 and 10 μm |

Wafer

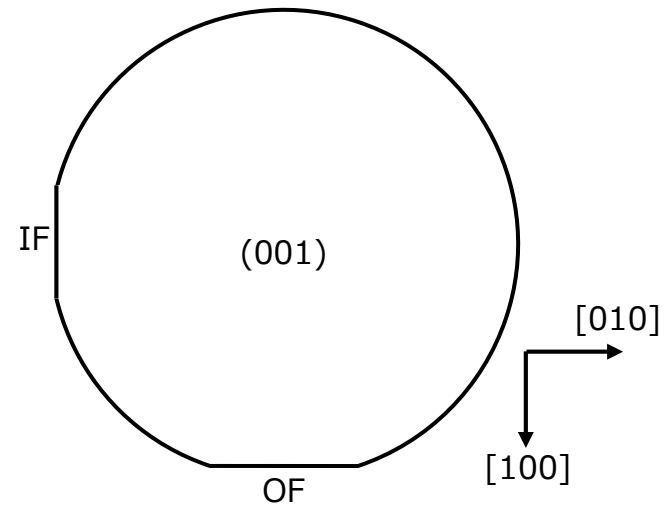
| Property | Specification |
|----------------------|--|
| Dopant | Sn (n-type) |
| Doping concentration | $1 \times 10^{18} \sim 2 \times 10^{19} \text{ cm}^{-3}$ |
| Orientation | (001) |
| Size | $\Phi 2$ inch |
| Thickness | 0.65 mm |
| XRD FWHM | ≤ 350 arcsec |
| Off set angle | $0^\circ \pm 1^\circ$ |

Remarks

- 1 These products must be used for research and development purposes only.
- 2 The substrates must not be used as a seed crystal.
- 3 The specifications are subject to change without notice.



Cross section of β -Ga₂O₃ epitaxial wafer



Orientation



Novel Crystal Technology, Inc.