



100 mm SI VGF GaAs



Freiberger

| Parameter | | Unit | Values |
|--|---------------------------------|---------------------|------------------------------------|
| Diameter | | mm | 100.0 ± 0.1 |
| Crystal growth method | | | VGF |
| Resistivity ^{*1} | | Ωcm | (0.8 ... 8.0) × 10 ⁸ |
| Hall mobility | | cm ² /Vs | (7.5 ... 4.0) × 10 ³ |
| Carbon content | | cm ⁻³ | (1.0 ... 10.0) × 10 ¹⁵ |
| Etch pit density ^{*2} | avg. value on wafer | cm ⁻² | ≤ 5 000 |
| EL2 concentration | avg. value on wafer | cm ⁻³ | (1.0 ... 1.5) × 10 ¹⁶ |
| (100)-orientation | on | ° | ± 0.5 |
| | off towards (110) ^{*3} | ° | 2.0 ± 0.5 |
| Orientation (OF) flat | length | mm | 32.5 ± 2.0 |
| SEMI-US | orientation | | [011] ± 1° |
| SEMI-EJ | orientation | | [011] ± 1° |
| Identification (IF) flat | length | mm | 18.0 ± 2.0 |
| SEMI-US | orientation | | [011] ± 5° |
| SEMI-EJ | orientation | | [011] ± 5° |
| Thickness ^{*3} | | μm | 625 ± 25 |
| Total thickness variation (TTV) | | μm | ≤ 5 |
| Total indicated reading (TIR) | | μm | ≤ 4 |
| Local focal plane deviation (LFPD _{max}) | | μm | ≤ 1.2 |
| Local thickness variation (LTV _{max}) | | μm | ≤ 1.5 |
| Measurement site size | | mm | 15 × 15 |
| Warp | | μm | ≤ 7 |
| Particles | diameter > 0.3 μm | pcs. | ≤ 50 |
| Front side treatment | | | polished |
| Back side treatment | | | polished |
| Laser marking | | | acc. SEMI T 5 |
| Packaging | standard option | | cassette single wafer container |

^{*1} measured @ 22°C

^{*2} measured according to DIN 50454-1: whole wafer mapping, site size 500 x 500 μm²
number of sites 27352, edge exclusion 3 mm

^{*3} other values upon request