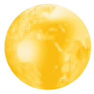

150 mm SI VGF GaAs

Parameter		Unit	Values
Diameter		mm	150.0 ± 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}	≤ 10 000
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
Notch	orientation		[010] ± 2°
	angle	°	90 +5/-1
	depth	mm	1.00 +0.25/-0.00
Thickness [*3]		µm	675 ± 25
Total thickness variation (TTV)		µm	≤ 6
Total indicated reading (TIR)		µm	≤ 5
Local focal plane deviation ($LFPD_{max}$)		µm	≤ 1.5
Local thickness variation (LTV_{max})		µm	≤ 1.8
Measurement site size		mm	20 × 20
Warp		µm	≤ 8
Particles	diameter > 0.3 µm	pcs.	≤ 100
Front side treatment			polished
Back side treatment			polished
Laser marking			acc. SEMI M 12
Packaging			cassette

[*1] measured @ 22 °C

[*2] measured according to DIN 50454-1: whole wafer mapping, site size 500 x 500 $µm^2$
number of sites 64525, edge exclusion 3 mm

[*3] other values upon request