100 mm SI VGF GaAs

Freiberger
Compound Materials

Parameter		Unit	Values
Diameter		mm	100.0 ± 0.1
Crystal growth method			VGF
Resistivity [*1]		Ω cm	(1.0 ... 8.0) E 8
Hall mobility		cm^2 / Vs	≥ 4 500
Carbon content		cm^{-3}	(2.0 ... 12.0) E 15
Etch pit density [*2]	avg. value on wafer	cm^{-2}	≤ 7 500
EL2 concentration	avg. value on wafer	cm^{-3}	(1.0 ... 1.5) E 16
(100)-orientation	on	°	± 0.5
	off towards (110) [*3]	°	2.0 ± 0.5
Orientation (OF) flat	length	mm	32.0 ± 2.0
SEMI-US	orientation		[01$\bar{1}$] ± 1°
SEMI-EJ	orientation		[0$\bar{1}\bar{1}$] ± 1°
Identification (IF) flat	length	mm	18.0 ± 2.0
SEMI-US	orientation		[011] ± 2°
SEMI-EJ	orientation		[0$\bar{1}$1] ± 2°
Thickness [*3]		µm	625 ± 25
Total thickness variation (TTV)		µm	≤ 5
Total indicated reading (TIR)		µm	≤ 4
Warp		µm	≤ 10
Measurement site size	diameter > 0.3 µm	mm	15 x 15
Particles		pcs.	≤ 50
Front side treatment			polished
Back side treatment			polished
Laser marking			acc. SEMI T 5
Packaging	standard		casette
	option		single wafer container [*4]

[*1] measured @ 22 °C
[*2] measured according to DIN 50454-1: whole wafer mapping, site size 500 x 500 $µm^2$ number of sites 27352, edge exclusion 3 mm
[*3] other values upon request
[*4] upon request for small quantity