100 mm SI LEC GaAs

Parameter		Unit	Values
Diameter		mm	100.0 ± 0.1
Crystal growth method			LEC
Option A			
Resistivity [*1]		Ω cm	(1.0 ... 6.0) E 7
Hall mobility		cm^2 / Vs	≥ 7 000
Carbon content		cm^{-3}	(0.3 ... 4.0) E 15
Option B			
Resistivity [*1]		Ω cm	(0.6 ... 4.0) E 8
Hall mobility		cm^2 / Vs	≥ 4 500
Carbon content		cm^{-3}	(2.0 ... 10.0) E 15
Etch pit density [*2]	avg. value on wafer	cm^{-2}	≤ 100 000
EL2 concentration	avg. value on wafer	cm^{-3}	(1.2 ... 1.7) 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		$[01\bar{1}] \pm 1^\circ$
SEMI-EJ	orientation		$[0\bar{1}\bar{1}] \pm 1^\circ$
Identification (IF) flat	length	mm	18.0 ± 2.0
SEMI-US	orientation		$[011] \pm 2^\circ$
SEMI-EJ	orientation		$[0\bar{1}1] \pm 2^\circ$
Thickness [*3]		µm	625 ± 25
Total thickness variation (TTV)		µm	≤ 5
Total indicated reading (TIR)		µm	≤ 4
Warp		µm	≤ 10
Measurement site size		mm	15 x 15
Particles	diameter > 0.3 µm	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: measurement at 9 sites
[*3] other values upon request
[*4] upon request for small quantity