



100 mm SC LEC GaAs Te doped



Freiberger

Parameter		Unit	Values
Diameter		mm	100.0 ± 0.1
Crystal growth method			LEC
Dopant			Te
Conductivity type			n
Carrier concentration ^{*1}		cm ⁻³	(0.05 ... 2.5) × 10 ¹⁸
Hall mobility ^{*2}		cm ² /Vs	(4.5 ... 2.3) × 10 ³
Etch pit density ^{*3}	avg. value on wafer	cm ⁻²	≤ 100 000
(100)-orientation	on off towards (110) ^{*4}	° °	± 0.5 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 ^{*4}		µm	625 ± 25
Total thickness variation (TTV)		µm	≤ 15
Total indicated reading (TIR)		µm	≤ 10
Warp		µm	≤ 10
Particles	diameter > 0.3 µm	pcs.	≤ 80
Front side treatment			polished
Back side treatment	standard option		cut/etched polished
Laser marking			acc. SEMI T 5
Packaging	standard option		cassette single wafer container

^{*1} other ranges upon request

^{*2} depending on doping level or carrier concentration

^{*3} measured according to DIN 50454-1: measurement at 9 sites

^{*4} other values upon request