



# 76.2 mm SC LEC GaAs Te doped



## Freiberger

Parameter		Unit	Values
Diameter		mm	76.2 ± 0.1
Crystal growth method			LEC
Dopant			Te
Conductivity type			n
Carrier concentration * <sup>1</sup>		cm <sup>-3</sup>	(0.05 ... 2.5) × 10 <sup>18</sup>
Hall mobility * <sup>2</sup>		cm <sup>2</sup> /Vs	(4.5 ... 2.3) × 10 <sup>3</sup>
Etch pit density * <sup>3</sup>	avg. value on wafer	cm <sup>-2</sup>	≤ 70 000
(100)-orientation	on off towards (110) * <sup>4</sup>	° °	± 0.5 2.0 ± 0.5
Orientation (OF) flat	length	mm	22.2 ± 1.5
SEMI-US	orientation		[011] ± 1°
SEMI-EJ	orientation		[011] ± 1°
Identification (IF) flat	length	mm	11.2 ± 1.5
SEMI-US	orientation		[011] ± 5°
SEMI-EJ	orientation		[011] ± 5°
Thickness * <sup>4</sup>		µm	450 ± 25
Total thickness variation (TTV)		µm	≤ 12
Total indicated reading (TIR)		µm	≤ 10
Warp		µm	≤ 15
Particles	diameter > 0.3 µm	pcs.	≤ 50
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

\*<sup>1</sup> other ranges upon request

\*<sup>2</sup> depending on doping level or carrier concentration

\*<sup>3</sup> measured according to DIN 50454-1: measurement at 9 sites

\*<sup>4</sup> other values upon request