

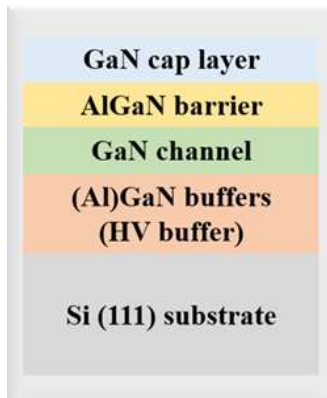
1. Features Overview

- P-GaN
- High Uniformity and Good Repeatability
- Low leakage current with excellent 2DEG characteristics
- Breakdown voltage > 650V
- 4", 6" and 8" available
- RoHS Compliant

2. Typical Applications

- Suitable for low cost CMOS process, Power HEMT
- Diode

3. Electrical Property and Epi-structure



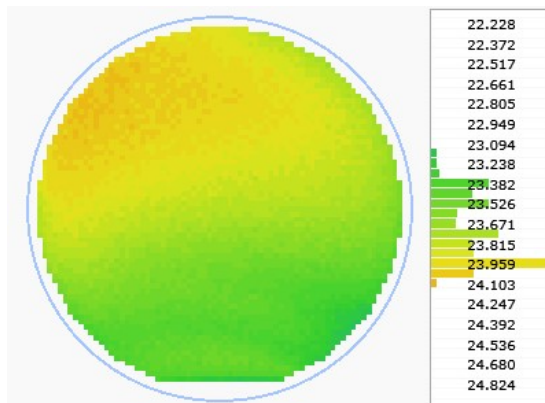
Specification	Values
Diameter	4/6/8inch
Epi thickness	4-6 μm
Bow	< 40μm
Sheet Resistance	< 450 Ω/□
Leakage	< 1 μA/mm ² @650V

Item	Criteria	Typical	Uniformity	Condition	Standard
Epi Thickness	4-6μm	5.0μm	≤1.5%	PL mapping	
Buffer Leakage(Vertical)	1 μA/mm ² @650V	0.5 μA/mm ² @650V			
Buffer Leakage(Lateral)	50nA/mm @650V	20nA/mm @650V			
Crystal Quality of GaN buffer (arcsec)					
FWHM(002)	800	650		XRD	
FWHM(102)	1500	1300		XRD	

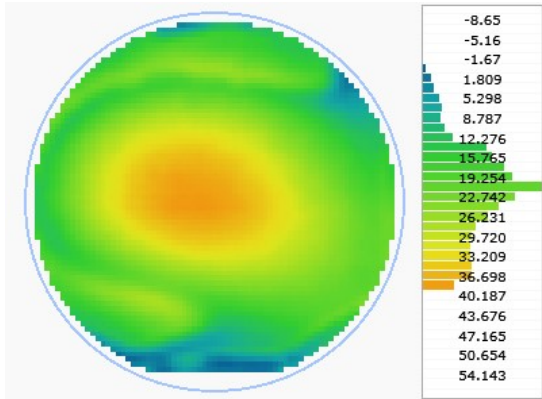
2DEG					
Mobility	>1600	1800		Hall	
Concentration	>8E12	9E12		Hall	
Rsh	≤450	400			
Wafer Profile and Surface					
Wafer Bow	≤50	≤40		PL mapping	
Total Defect					
Edge Crack	3mm	1mm			
Scratch					
Roughness	0.5nm	0.3nm		AFM	

Note: Edge Exclusion = 1mm for 4", 3mm for 150mm and 5mm for 200mm

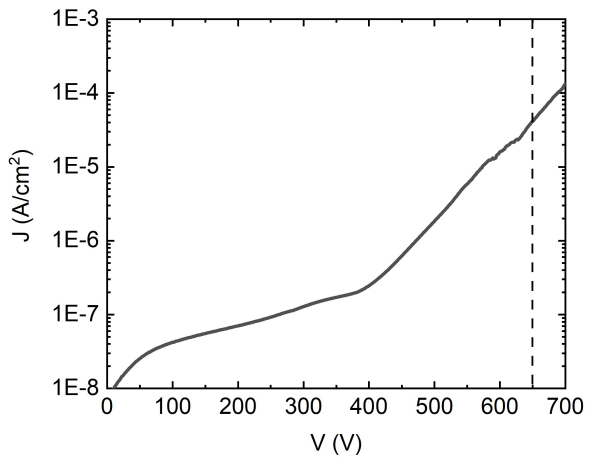
4. Typical Characteristics datasheet



Al% uniformity for AlGaN barrier



Wafer Bow Mapping



Vertical Leakage