

GaAs Single Crystal Wafers for LEDs

Standard Specifications(HB)

Conduction Type	n-Type			p-Type
Growth Method·Dopant	HB·Si			HB·Zn
Carrier Concentration (cm ⁻³)	2~7×10 ¹⁷	5~30×10 ¹⁷	1~4×10 ¹⁸	0.8~4×10 ¹⁹
Resistivity (Ω·cm)	2.5~9×10 ⁻³	1~5×10 ⁻³	0.8~3×10 ⁻³	2.2~9.5×10 ⁻³
Mobility (cm ² /V·sec)	2.5~4.5×10 ³	1.6~3.5×10 ³	1.4~2.9×10 ³	50~95
EPD Average (cm ²)	≤1×10 ⁴			
Measuring Points of EPD	Fig.1			
Diameter (mm)	50.0±0.3			
OF (mm) (Fig.2)	16.0±1.0			
IF (mm) (Fig.2)	7.0±1.0			
Edge Rounding (mmR)	0.25 (Conform to SEMI Standards)			
Thickness (μm)	300±25	300±25	350±25	
Orientation	(100)±0.3°, (100)2°~15°off±0.3°		(100)±0.3°	
Surface Finish	E/E			
	P/E			
Surface Clean	ST [Standard (Organic Solvent Cleaning)], SC-E (Super Clean Type E)			
Package	Cassette / Individual Container			

Fig.1

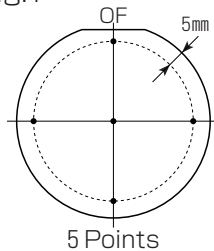
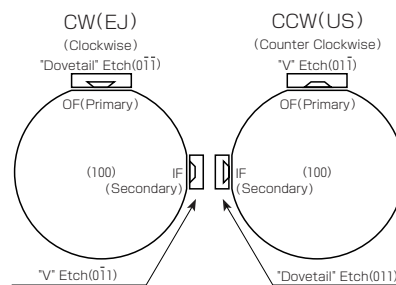


Fig.2



Attached Data

- Standard : Carrier Concentration · Resistivity · Mobility · Diameter · OF · IF · Thickness (min.~max.)
- Option : EPD Map · Accuracy of Orientation · Flatness

GaAs Single Crystal Wafers for LEDs

Standard Specifications(VB)

Conduction Type	n-Type					
Growth Method·Dopant	VB·Si					
Carrier Concentration (cm ⁻³)	0.5~40×10 ¹⁷	4~35×10 ¹⁷	2~35×10 ¹⁷			
Resistivity (Ω·cm)	0.8~20×10 ⁻³	1~7×10 ⁻³	1~15×10 ⁻³			
Mobility (cm ² /V·sec)	1.4~4×10 ³					
EPD Average (cm ²)	≤1×10 ³	≤2×10 ³	≤5×10 ³			
Measuring Points of EPD	Fig.1	Fig.2	Fig.3		Fig.4	
Diameter (mm)	50.0±0.3	76.0±0.3	100.0±0.3		150.0±0.3	
OF (mm) (Fig.5)	16.0±1.0	22.0±1.0	32.5±1.0		48.0±1.0	
IF (mm) (Fig.5)	7.0±1.0	12.0±1.0	18.0±1.0		30.0±1.0	
Edge Rounding (mmR)	0.25 (Conform to SEMI Standards)					
Thickness (μm)	300±25	350±25	450±25	350±25	450±25	675±25
Orientation	(100)±0.3°, (100)2°~15°off±0.3°					
Surface Finish	E/E				P/P	
	P/E					
Surface Clean	ST [Standard (Organic Solvent Cleaning)], SC-E (Super Clean Type E)					
Package	Cassette / Individual Container					

Fig.1

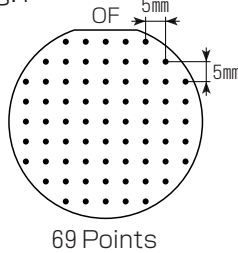


Fig.2

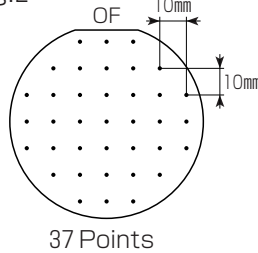


Fig.3

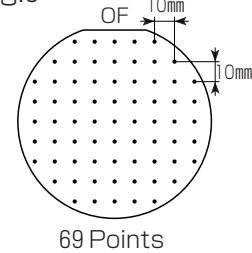


Fig.4

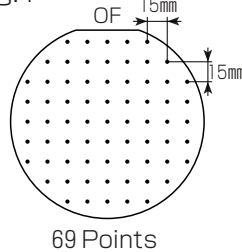
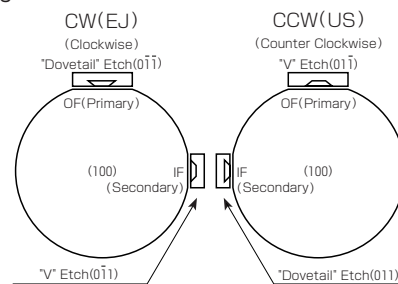


Fig.5



Attached Data

- Standard : Carrier Concentration · Resistivity · Mobility · Diameter · OF · IF · Thickness (min.~max.)
- Option : EPD Map · Accuracy of Orientation · Flatness