PRODUCT DATA SHEET Cn1010-241-012-5-2-a100

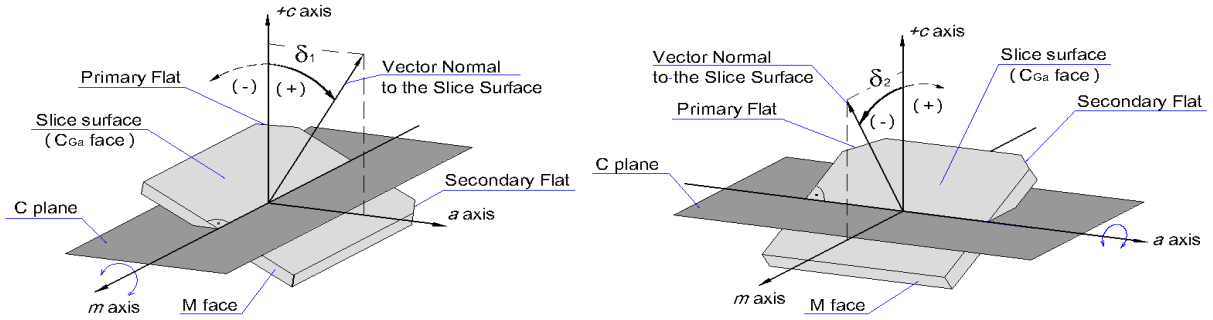
10 mm x 10 mm C-plane n-type high-transparency AMMONO-GaN substrate, oxygen-doped.
The substrate is sliced from a mono-crystalline bulk material grown by ammonothermal method.

TECHNICAL SPECIFICATION

DESCRIPTION		UNIT	VALUE
General specification			
	Orientation		(0001) C plane
	Thickness	µm	350 (±50)
	Dimension(s)	mm	10 (±0,5) x 10 (±0,5)
	Primary Flat (PF)	mm	3 (±0,5)
	Secondary Flat (SF)	mm	1,5 (±0,5)
	Bow	µm	0 (±10)
	Total Thickness Variation (TTV)	µm	≤ 20
Structural specification			
	Etch Pit Density (EPD)	cm^{-2}	$< 5 \times 10^4$
	FWHM (0002) of X-ray rocking curve, epi-ready surface at 100 µm x 100 µm slit	arcsec	~ 20
	Macrodefects		none
Electrical specification			
	Type of conductivity		n type
	Carrier concentration	cm^{-3}	2×10^{17} - 2×10^{18}
	Resistivity	Ω*cm	10^{-2} - 10^{-1}
	Carrier mobility	$cm^2/V*s$	~ 200 - 250

MISORIENTATION

(measured in the center of the substrate)

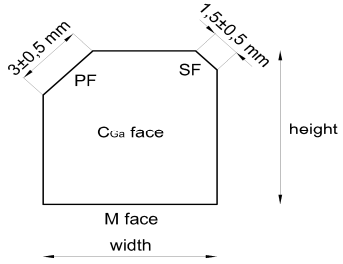


Off M face		deg	0 (±0,25)
C face	angle δ_1	deg	0 (±0,20)
	angle δ_2	deg	±0,3 (±0,20)

SURFACE PREPARATION

Front side			Epi-ready polished (RMS < 0,5 nm)
Back side			Ground

SUBSTRATE SHAPE



Note: The information given above may be subject to change at any time without notice. This leaflet is not an offer within the meaning of sales or commercial law. The AMMONO-GaN substrates are offered for sale under Ammono's General Terms and Conditions.

ver. January 2018