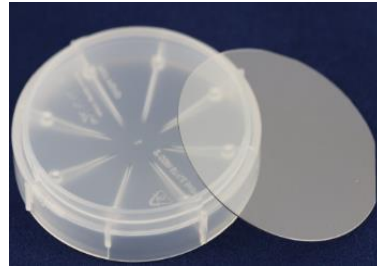


Gallium Nitride GaN :

**Gallium Nitride GaN**

Gallium nitride is a compound synthesized from nitrogen and gallium, it is grown by synthetic crystals. Since GaN does not melt at atmospheric pressure, it must be formed by vapor phase or solution deposition.



Silicon (Si) can be used as a representative of the first-generation semiconductor material, gallium arsenide (GaAs) is a representative of the second-generation semiconductor material, and gallium nitride (GaN) is a typical representative of the third-generation semiconductor material. Compared with other semiconductor materials, the third-generation semiconductor materials have a significant advantage in their wide energy band gap, which can reach 3.4 electron volts. The third-generation semiconductor materials also have the advantages of high breakdown voltage, high thermal conductivity and radiation resistance.

Gallium nitride (GaN) has properties such as wide direct band gap, strong atomic bond, high thermal conductivity and strong radiation resistance. It is not only a short-wavelength optoelectronic material, but also a replacement material for high-temperature semiconductor devices. GaN system It can be used to prepare blue and green LEDs, blue-violet and ultraviolet LDs, ultraviolet detectors and high-frequency and high-power electronic devices.

**main feature:**

It has the characteristics of large band gap, high thermal conductivity, high temperature resistance, radiation resistance, acid and alkali resistance, high strength, high hardness, etc.

**Product parameters:**

Dimensions (mm)	10.0×10.0, 10.0×15, Φ50.8, Φ100 or customized
Thickness (mm)	0.3/0.35/0.4; ±25 μm
crystal direction	C-axis(0001) ± 0.25°
TTV	≤15 μm
BOW	≤20 μm
model	N type
Impedance (300K)	<0.5Ω·cm
dislocation density	1 x 10 <sup>5</sup> - 3 x 10 <sup>6</sup> cm <sup>-2</sup>
usable area	>90%
polishing	Positive: Ra<0.2nm. Epi-ready



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Package	Class 100 packaging bag, nitrogen filled packaging box
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