



C365-2SR2



TECHNICAL DATA

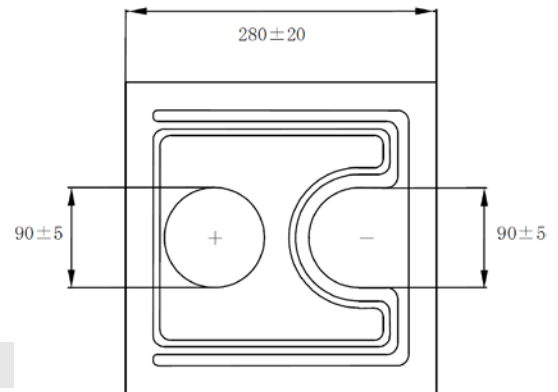
UV LED, Chip Die

GaN

C365-2SR2 is a 280x280 μm UV LED chip die, based on GaN material. On forward bias, it emits a radiation of typical 1.0-1.5 mW at a peak wavelength of 365 nm.

Specifications

- Structure: GaN based material
- Substrate: Sapphire
- Peak Wavelength: 365 nm
- Optical Output Power: 1.0-1.5 mW
- Bottom Area: 280x280 μm ± 20 μm
- Electrodes: Au alloy



Electro-Optical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 20 \text{ mA}$	3.2	3.6	4.2	V
Reverse Current	I_R	$V_R = 5 \text{ V}$	-	-	10	μA
Peak Wavelength * ¹	λ_P	$I_F = 20 \text{ mA}$	363	-	370	nm
Half Width	$\Delta\lambda$	$I_F = 20 \text{ mA}$	-	15	-	nm
Total Radiated Power	P_O	$I_F = 20 \text{ mA}$	1.0	-	1.5	mW

*¹ Measurement error: ± 2 nm

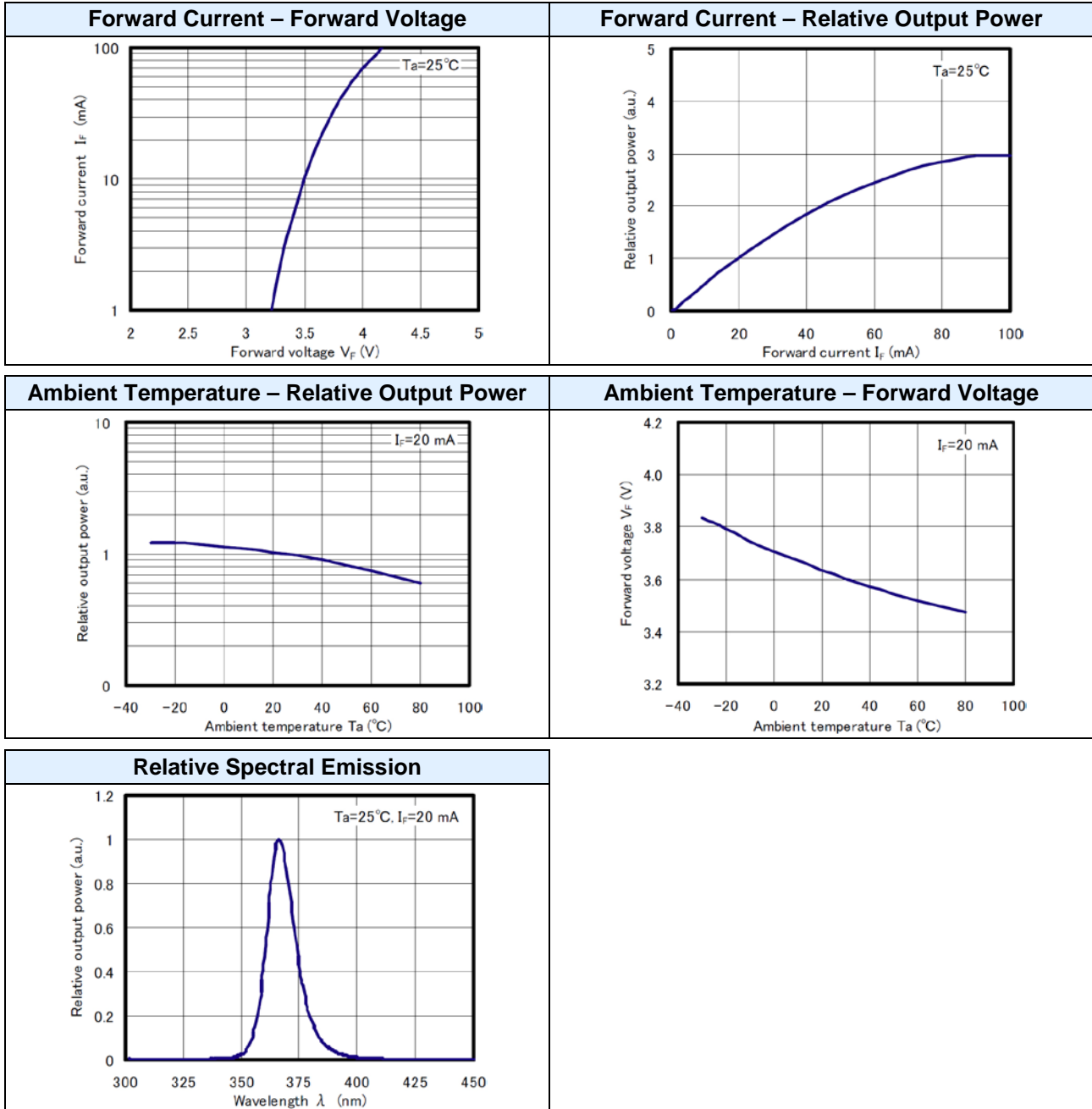
*² Radiated Power is measured as chip mounted in TO-18 header; measurement error: 10%

*³ on request

Note: The above specifications are for reference purpose only and subjected to change without prior notice.



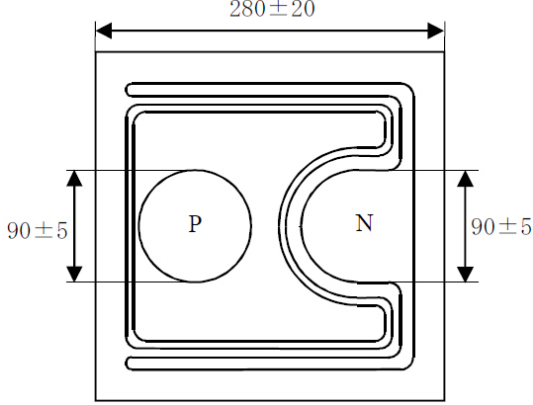
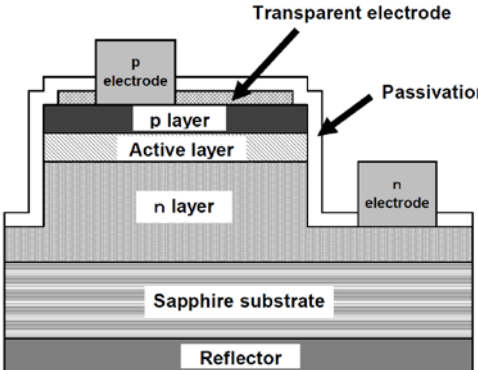
Typical Performance Curves



Note: Typical performance curves are depending on packaging method. The above data are for SMD packaged LEDs.



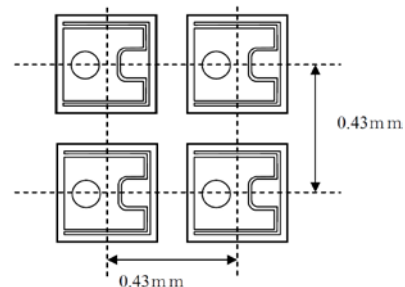
Dimensions and Design

Dimensions	Mechanical Specification
 <p>(Unit: μm)</p>	<p>Emission Area: $201 \times 201 \pm 5 \mu\text{m}$ Bottom Area: $280 \times 280 \mu\text{m} \pm 20 \mu\text{m}$ Chip Thickness: $120 \mu\text{m} \pm 10 \mu\text{m}$</p> <p>N Bonding Pad Electrode: $90 \mu\text{m} \pm 5 \mu\text{m}$ P Bonding Pad Electrode: $90 \mu\text{m} \pm 5 \mu\text{m}$ (R=45)</p> <p>Electrodes Spacing: $128 \mu\text{m} \pm 5 \mu\text{m}$</p>
Cross Section Diagram	Material
	<p>Substrate: Sapphire Epitaxial Layer: GaN Based Material</p> <p>N Bonding Pad Electrode: Au alloy P Bonding Pad Electrode: Au alloy</p>

Package

Chips are attached on an arranging sheet.

Arranging sheet: Tecni tape T4, TECNISCO
 Sheet size: 200x200 mm
 Adhesive side: the back of chips
 Arranging pitch: 0.43 mm



Inspection

- All chips will be inspected on each item of the electrical and optical characteristics (V_F , I_R , P_O , λ_P , $\Delta\lambda$).
- Verification of quantity: Calculated quantity of chips on an arranging sheet without shortage.



Precaution for Use

1. Cautions

- DO NOT look directly into the emitting area of the LED during operation!
- The LED is emitting UV radiation, which may harm your eyes. To prevent inadequate exposure of UV radiation, wear UV protective glasses.
- Please handle with care when taking out the chips on sheet.
- A UV light resistance paste for chip mounting is recommended.

2. Static Electricity

- The LEDs are very sensitive to Static Electricity and surge voltage. So it is recommended that a wrist band and/or an anti-electrostatic glove be used when handling the LEDs.
- All devices, equipment and machinery must be grounded properly. It is recommended that precautions should be taken against surge voltage to the equipment that mounts the LEDs.

