

RF-WN1000-02

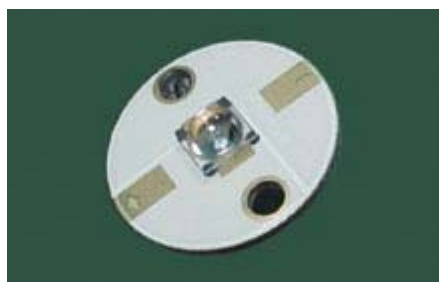
FEATURES

Growth Technique: MOCVD

Substrate: Sapphire(0001)

Structure: InGaN MQW

Chip size: 1 mm × 1 mm



ABSOLUTE MAXIMUM RATINGS (at T_A=25 °C)

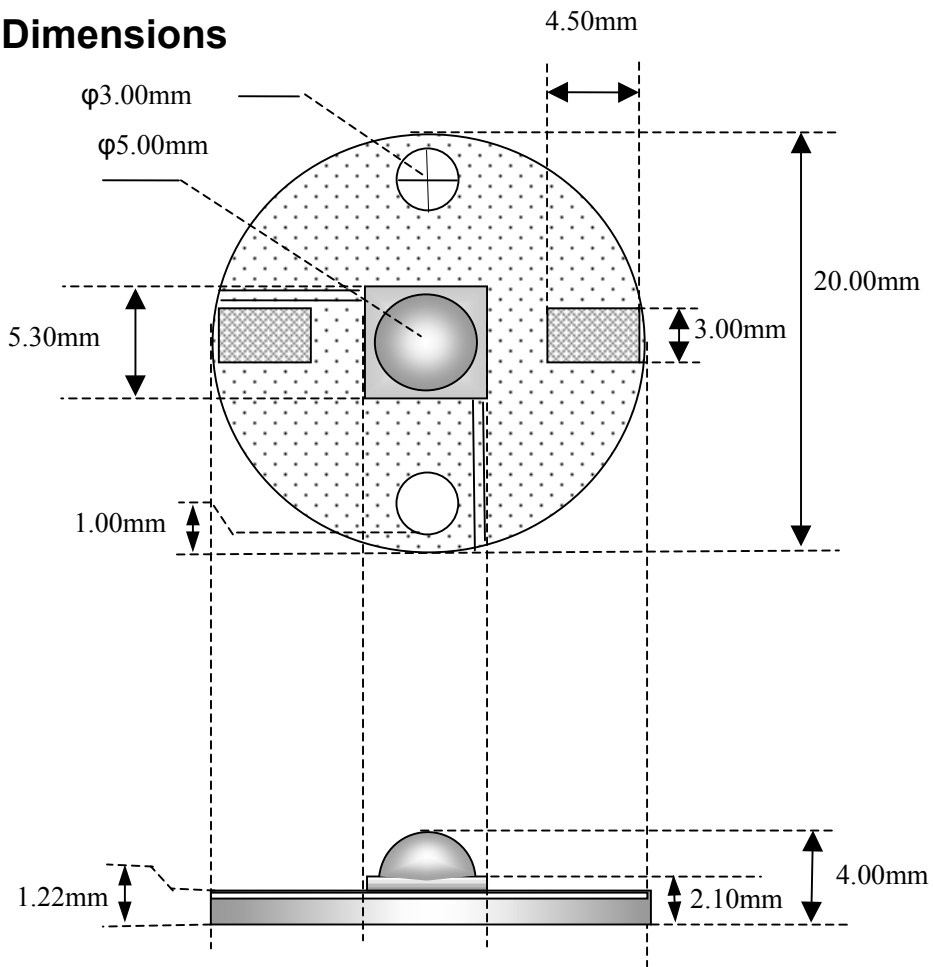
Parameter	Symbol	Min.	Max.	Unit
Forward Current	I _F		500	mA
Pulse Forward Current	I _{FP} *		1500	mA
Reverse Voltage	V _R		5	V
Operating Temperature	Topr.	-30	+85	°C
Storage Temperature	Tstg.	-40	+85	°C
Power Dissipation	P _D		1200	mW

*Pulse width: Max.10 ms, Duty ratio: Max 1/10

Electrical/Optical Characteristics (at T_A=25°C)

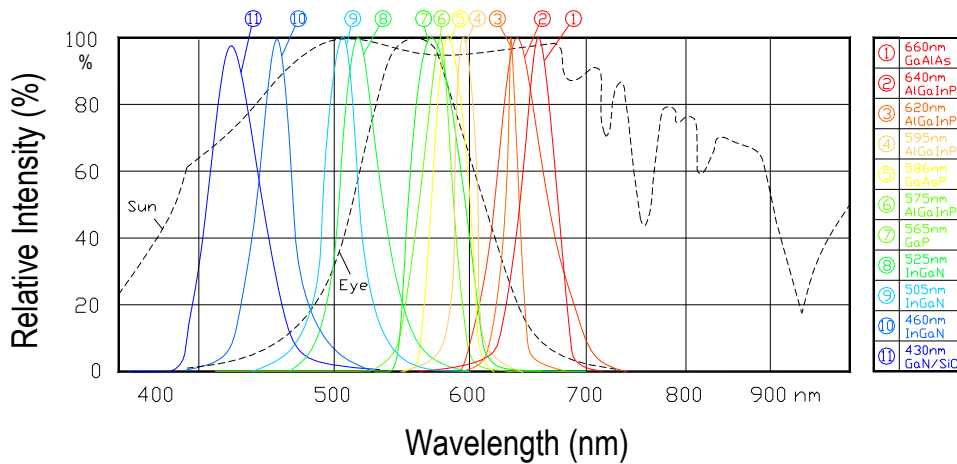
Parameter	Condition	Unit	Min.	Typ.	Max.
Forward Voltage V _F	I _F = 350 mA	V	3.2	3.5	3.8
Reverse Current I _R	V _R = 5 V	μA			10
X/Y	I _F = 350 mA				
Luminous Intensity I _V	I _F = 350 mA	cd	12	16	20

Package Dimensions



Optical characteristic curves of RF series

Relative Intensity vs. Wavelength



*1 Criteria For Judging the Damage

Measuring items	Symbol	Measuring conditions	Judgement criteria for failure
Forward Voltage	V_F	$I_F = 350 \text{ mA}$	Over $U \times 1.1$
Reverse current	I_R	$V_R = 5 \text{ V}$	Over $U \times 2$
Luminous intensity	I_V	$I_F = 350 \text{ mA}$	Below $S \times 0.7$

U means the upper limit of specified characteristics. S means initial value.

PACKAGING

Indication: Label of below in the reel

PART NO. RF-WNP-20100BWC-02

LOT NO.

QTY: PCS

APPLICATION NOTES

Static Electricity

Products are sensitive to static electricity and a high standard of care must be taken when handling products. Particularly if an over-voltage which exceeds the Absolute Maximum Rating of Products is applied, the overflow in energy may cause damage to, or possibly result in destruction of the products. To touch the lead directly must be avoided. Customer shall take absolutely secure countermeasures against static electricity and surge when handling products.

Soldering

1 Manual soldering by soldering iron

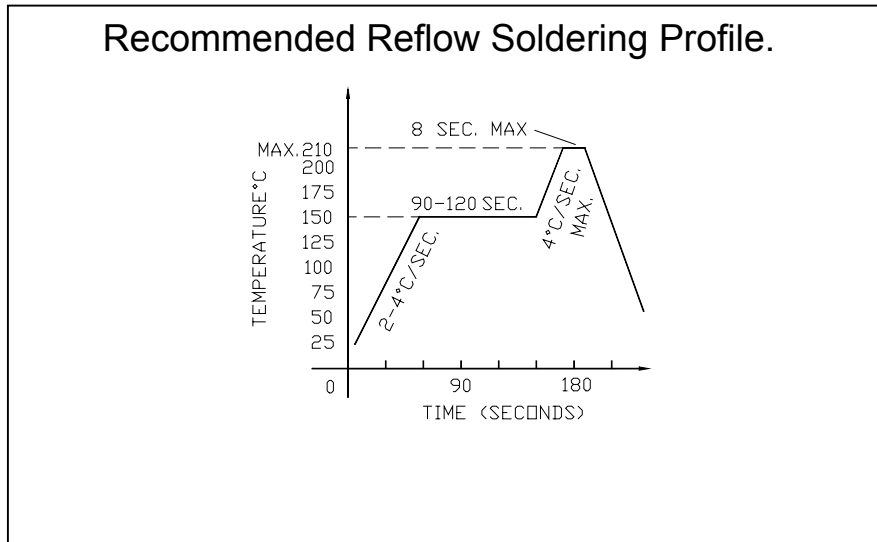
The use of a soldering iron of less than 25W is recommended and the temperature of the iron must be kept at no higher than 260°C.

2 Reflow soldering

a. The temperature profile as shown in Fig.3 is recommended for soldering SMD LED by the reflow furnace.

b. Care must be taken that the products be handled after their

temperature has dropped down to the normal room temperature after soldering.



3) Post solder cleaning

When cleaning after soldering is needed the following conditions must be adhered to.

- 1 Cleaning solvents Freon TF or equivalent or alcohol.
- 2 Temperature 50°C Max. for 30 seconds or
30°C Max. for 3 minutes

3 Ultrasonic 300 W Max.

4) OTHERS

- a. Care must be taken not to cause stress to the epoxy resin portion of POWER LEDs while it is exposed to the high temperature.
- b. Care must be taken not to rub the epoxy resin portion of POWER LEDs with a hard or sharp edged article such as the sand blast and the metal hook as the epoxy resin is rather soft and liable to be damaged.