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**LIGHTOP TECHNOLOGY CO., LTD.**

## **Data Sheet**

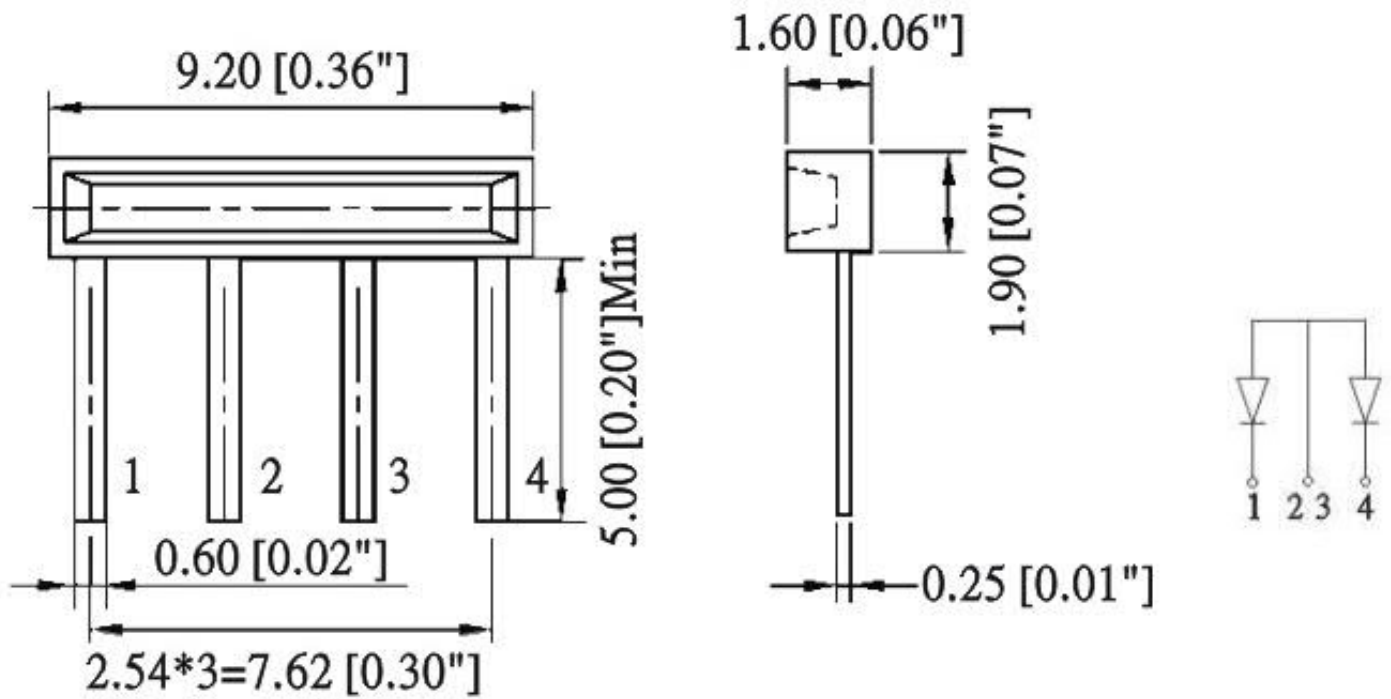


REVISION	01
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APPROVAL BY	JASON
PREPARED BY	LUOFAXING

**Features:**

1. Low power consumption
2. High efficiency
3. Reliable and rugged
4. Chip Material: InGaN
5. Lens Color: Water Clear
6. Source Color: GREEN

**Outline Dimensions:**



Note :

1. All dimensions are in millimeters (inches)
2. Tolerance is ±0.2mm (0.008") unless otherwise noted
3. Specifications are subject to change without notices.

**Absolute Maximum Ratings at Ta=25°C :**

Parameter	Maximum	Unit
Power Dissipation	170	mW
Peak Forward Current (1/10 Duty Cycle,0.1ms Pulse Width)	100	mA
Continuous Forward Current	25	mA
Derating Linear From 50°C	0.3	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-40°C to + 80°C	
Storage Temperature Range	-40°C to + 85°C	

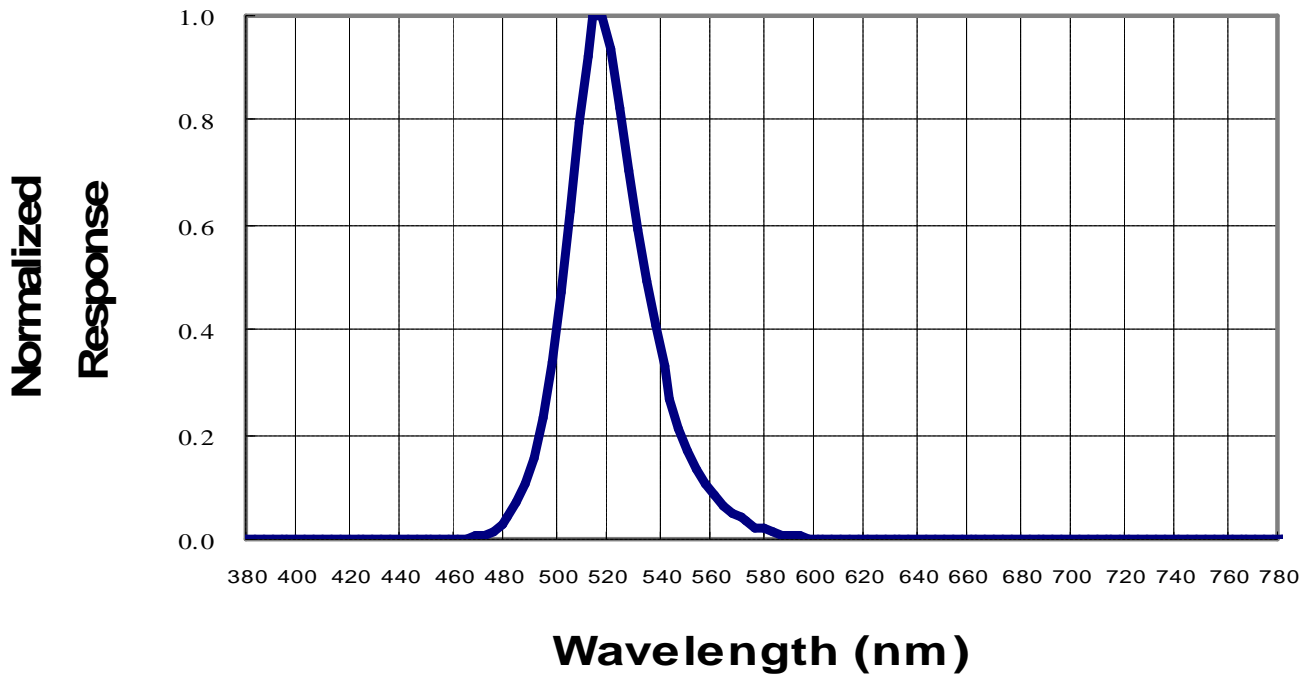
**Electrical/Optical Characteristics at Ta=25°C :**

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> =20mA	500	700	--	mcd
Dominant Wavelength	λ <sub>d</sub>	I <sub>F</sub> =20mA	518	522	530	nm
Viewing Angle	2θ 1/2	I <sub>F</sub> =20mA	--	120	--	deg
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	5.0	6.0	6.8	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	--	--	10	uA

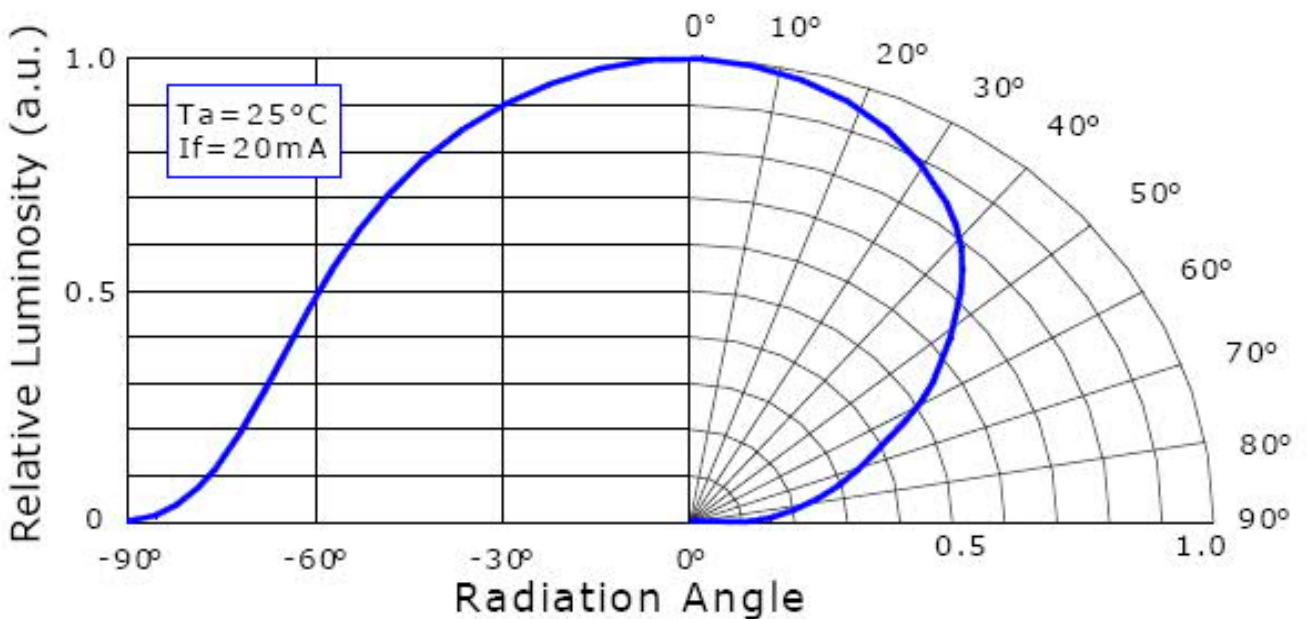
**Typical Electrical/Optical Characteristics Curve:**

(25°C Ambient Temperature Unless Otherwise Noted)

**Spectral Radiance (Peak @ 518nm)**



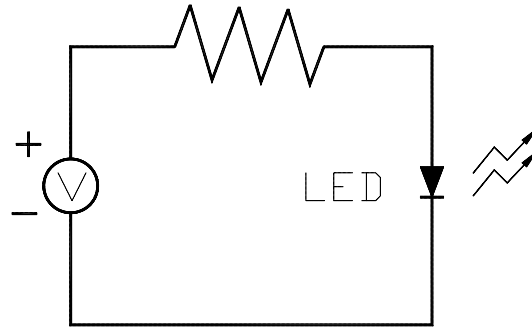
**Beam Pattern**



**Test items and results of reliability:**

Type	Test Item	Test Conditions	Note	Number of Damaged
Environmental Sequence	Temperature Cycle	-20°C 30min ↑↓ 80°C 30min	100 cycle	0/22
	Thermal Shock	-20°C 15min ↑↓ 80°C 15min	100 cycle	0/22
	High Humidity Heat Cycle	30°C ↔ 65°C 90% RH 24hrs/1cycle	10 cycle	0/22
	High Temperature Storage	T <sub>a</sub> =80°C	1000 hrs	0/22
	Humidity Heat Storage	T <sub>a</sub> =60°C RH=90%	1000 hrs	0/22
	Low Temperature Storage	T <sub>a</sub> =-30°C	1000 hrs	0/22
Operation Sequence	Life Test	T <sub>a</sub> =25°C I <sub>F</sub> =20mA	1000 hrs	0/22
	High Humidity Heat Life Test	60°C RH=90% I <sub>F</sub> =10mA	500 hrs	0/22
	Low Temperature Life Test	T <sub>a</sub> =-20°C I <sub>F</sub> =20mA	1000 hrs	0/22

## Test Circuit & Handling Precautions:



### 1. Over-current-proof

Customer must apply resistors for protection; otherwise slight voltage shift will cause big current change (Burn out will happen).

2. Shelf life in sealed bag: 12 month at 5°C~30°C and <60% R.H;

3. After the package is Opened:

3.1. It is recommended to baking before the first use:

Baking condition:

a.  $60\pm 3^{\circ}\text{C}$  x (36~48hrs) and <5%RH, taped reel type;

b.  $110\pm 3^{\circ}\text{C}$  x (8~16hr), bulk type;

3.2 The products should be used within a week:

a. It is recommended to baking before soldering when the pack is unsealed after 72hrs;

b. Baking condition as 3.1 baking condition

## Tape & Reel of 2022xx series:

Products (numbers of products are 1,000pcs) packed in a seal off moisture-proof bag

