CHINA
SEMICONDUCTOR
CORPORATION

Spec. No.	PS-LL-N502TG4-A0
Rev.	A

PRODUCT SPECIFICATION

Model No：CSLR-N502TG4-A0

Descriptions:
■LED Type ： Lighting LED Lamp
■LED Package： Round LED Lamp
■Emitting Color：Green
■Viewing Angle：15°
■No Stopper

CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

CHINA SEMICONDUCTOR CORPORATION
Address:2FL. NO.909,Chung-Cheng Road,
Chung-Ho City Taipei Hsien,Taiwan.

Tel:886-2-2223-9696
Fax:886-2-2223-9377

OPTO PLUS TECHNOLOGIES CO.,LTD
Address:696 Shun jiang Rd.,Ji Shan St.Shaoxing,
ZheJiang,China

Tel:86-0575-88623888
Fax:86-0575-88623112

Model No：CSLR-N502TG4-A0

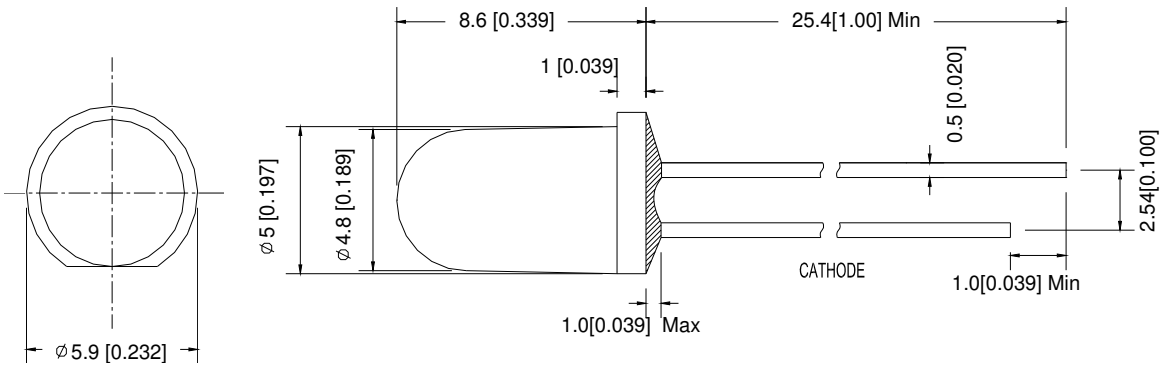
■ Features -

1. Low Power Consumption.
2. High Luminous Output
3. High Reliability and Solid Performance
4. Optimal Optical/Mechanical Design
5. Rohs Compliant

■ Device Selection Guide -

Part No.	Chip		LED Lens
	Material	Emitted Color	
CSLR-N502TG4-A0	InGaN	Green	Water Transparent

■ Package Outline Dimensions -



＊Tolerance：$\pm\frac{0.01}{0.25}$ Unit：$\pm\frac{\text{inch}}{\text{mm}}$

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■ Absolute Maximum Rating -

(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	76	mW
Forward Current (DC)	I_F	30	mA
Peak Forward Current *	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Operating Temp.	Topr	-30 ~ +80	℃
Storage Temp.	Tstg	-40 ~ +100	℃
Lead Soldering Temperature	Tsol	Max. 260℃ for 5 sec Max. (3mm from the epoxy body)	

* Pulse width ≦0.1 msec. duty ≦1/10

■ Electro-optical Characteristics

(Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	V_F	-----	3.3	3.8	V	I_F=20mA
Luminous Intensity	I_V	14600	27000	-----	mcd	
Dominant Wavelength	λD	-----	525	-----	nm	
Viewing Angle	2θ 1/2	-----	15	-----	deg	
Reverse Current	I_R	-----	-----	50	μA	V_R=5V

Model No：CSLR-N502TG4-A0

■ Luminous Intensity Rank Limits (I_F = 20mA)

unit：mcd

Part No. / Code	CSLR-N502TG4-A0	
	min.	max.
Y	14600	19000
Z	19000	24700
Z1	24700	32100
Z2	32100	41700

■ Dominant Wavelength Rank Limits (I_F = 20mA)

unit：nm

Part No. / Code	CSLR-N502TG4-A0	
	min.	max.
TG2	520	525
TG3	525	530
TG4	530	535

■ Forward Voltage Rank Limits (I_F = 20mA)

unit：v

Part No. / Code	CSLR-N502TG4-A0	
	min.	max.
H	2.8	3.0
J	3.0	3.2
K	3.2	3.4
L	3.4	3.6
M	3.6	3.8

Notes:

1. Tolerance of measurement of luminous intensity :±15%
2. Tolerance of measurement of Color Coordinates :±0.01
3. Tolerance of measurement of forward voltage :±0.05v
4. All data are measured by CSC's test equipment.
5. One delivery will include several color rank, VF rank and Iv ranks of the products.
6. The quantity-ratio of the ranks is decided by CSC.
7. Please confirm with CSC salesman,if your request different form standard specification.

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■ Typical Electrical / Optical Charateristics Curves -

(Ta = 25℃ Unless Otherwise Noted)

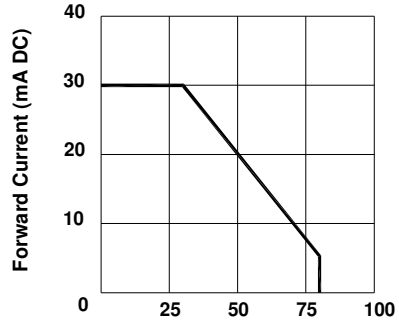

Fig 1. Forward Current
Vs. Ambient Temperature

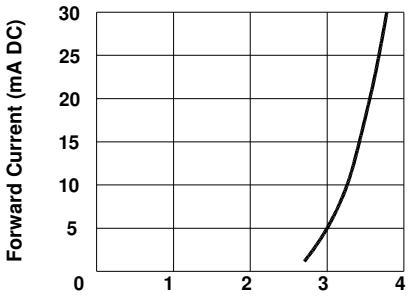

Fig 2. Forward Current
Vs. Forward Voltage

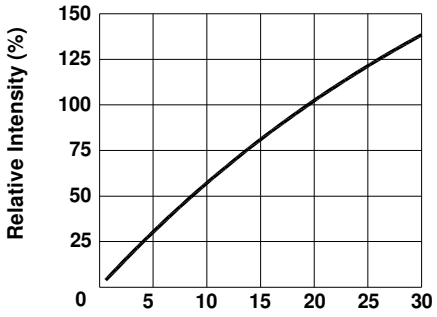

Fig 3. Relative Intensity
Vs. Forward Current

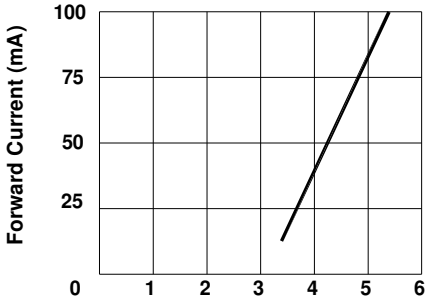

Fig 4. Peark Forward Voltage
Vs.Forward Current
(100us test pulse,1% duty cycle)

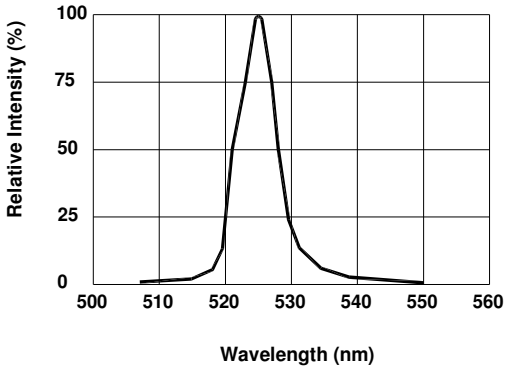

Fig 5. Relative Intensity Vs. Wavelength

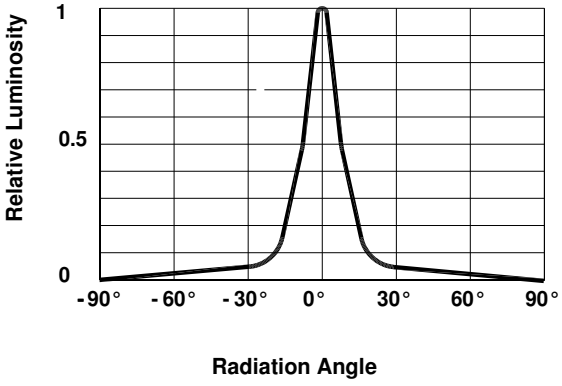

Fig 6. Relative Luminous Intensity vs.Radiation Angle

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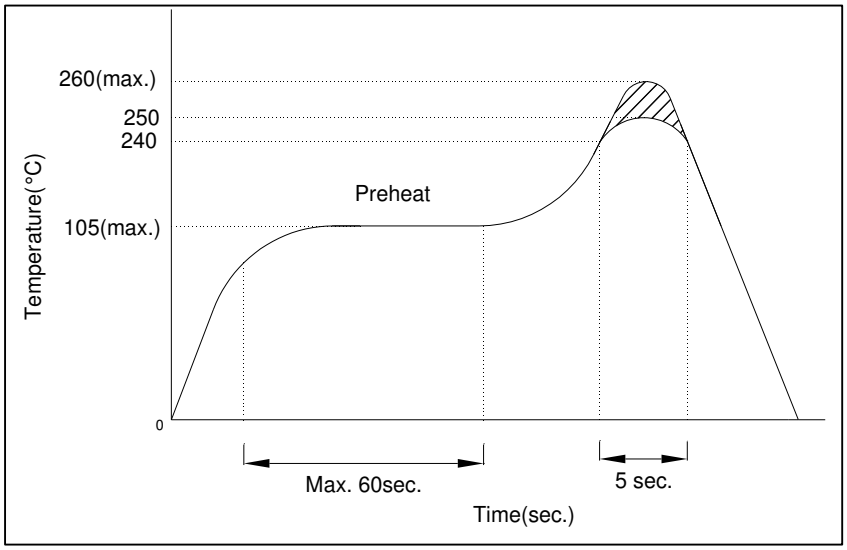
■ Precautions For Use -

1. Recommended Soldering conditions

Wave Soldering



2. Soldering Iron

Basic SPEC. is ≦5sec. When 260℃. If temperature is higher, time should be shorter (+10℃→ -1sec.). Power dissipation of iron should be smaller than 15W , and temperature should be controllable. Surface temperature of the device should be under 230℃.

3. Static Electricity

a. Static electricity or surge voltage damages LEDs..
It is recommended that a wrist band or an anit-electrostatic glove be used when handling the LEDs.

b. All devices, equipment and machinery must be properly grounded. It is recommended that mesures be taken against surge voltage to the equipment that mounts the LEDs.