

Specification No.	
Date	2002. 11.20

# SPECIFICATIONS

5 $\Phi$  Pure Green LED LAMP

MODEL : ATPG- L53C

Designed by	Checked by	Approved by



**ACROSENTEC**



## MODEL : ATPG-L53C

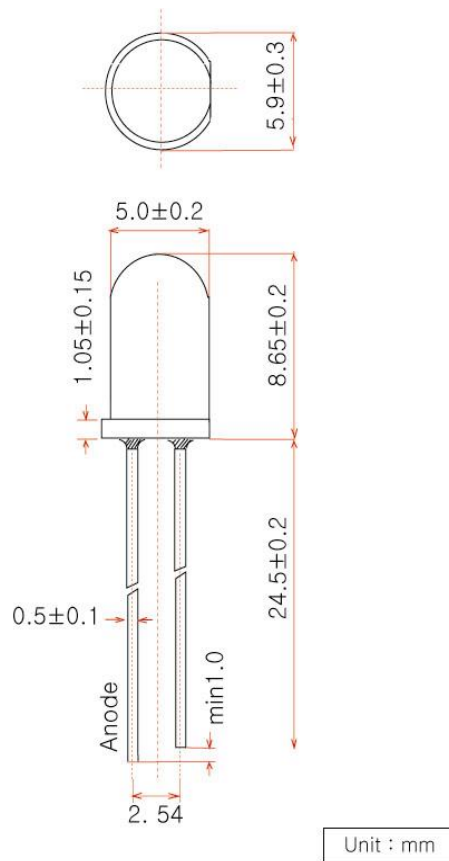
### 1. Features

- 1-1. InGaN Pure Green Chip
- 1-2. 5mm all epoxy resin mold type
- 1-3. Colorless Cylinder type LED lamp
- 1-4. Ultra luminous intensity

### 2. Application

- 2-1. LED Display / Traffic Guiding signal
- 2-2. Illumination device
- 2-3. Back Light for Signboard

### 3. Dimension



#### ► Description :

- 5mm, 30° Water clear type
- Designed for Ultra high brightness



**MODEL : ATPG-L53C**

#### 4. Absolute maximum ratings and Characteristics

##### 4 - 1 Absolute maximum ratings

Ta=25°C

Items	Symbols	Ratings	Units
Forward Current	I <sub>F</sub>	30	mA
Pulse Forward Current *1	I <sub>FP</sub>	100	mA
Power Dissipation	P <sub>D</sub>	78	mW
Reverse Voltage	V <sub>R</sub>	5	Vr
Operating Temperature	T <sub>opr</sub>	-30 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-30 ~ +100	°C
Soldering Temperature *2	T <sub>SOL</sub>	260±5°C	°C

\*1) Pulse Width = 100 μsec, Duty ≤ 10%

\*2) 5sec at location 3.0mm away from the base of the epoxy bulb

##### 4 - 2 Optical and Electrical Characteristics

Ta=25°C

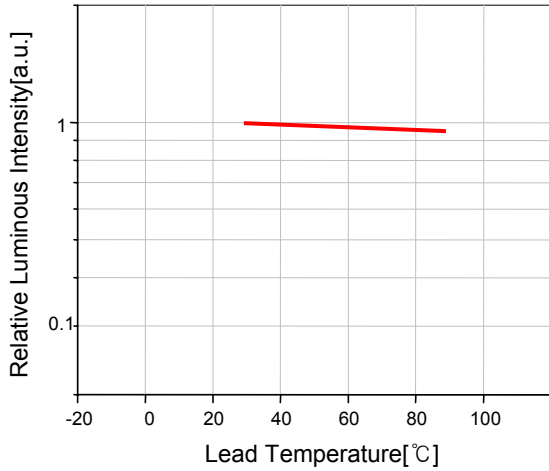
Item	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20[mA]	-	3.4	3.8	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5[V]	-	-	10	μA
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> =20[mA]	4800	6000	-	mcd
Dominant Wavelength	λ <sub>d</sub>	I <sub>F</sub> =20[mA]		525		
Spectral Linewidth	Δλ	I <sub>F</sub> =20[mA]	-	26	-	nm
Viewing Angle	2Θ <sub>1/2</sub>	I <sub>F</sub> =20[mA]		30		deg



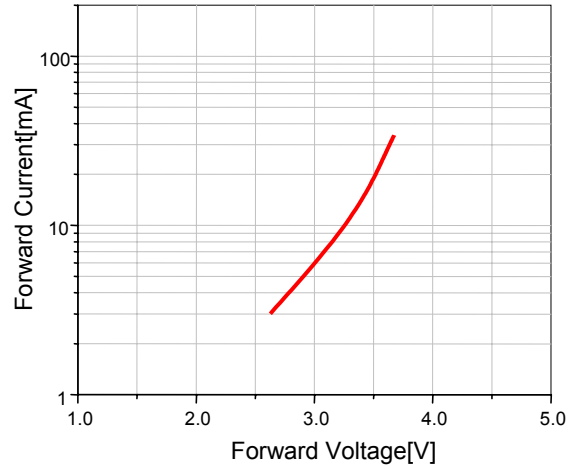
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## 6. Typical Electro-optical characteristics curve

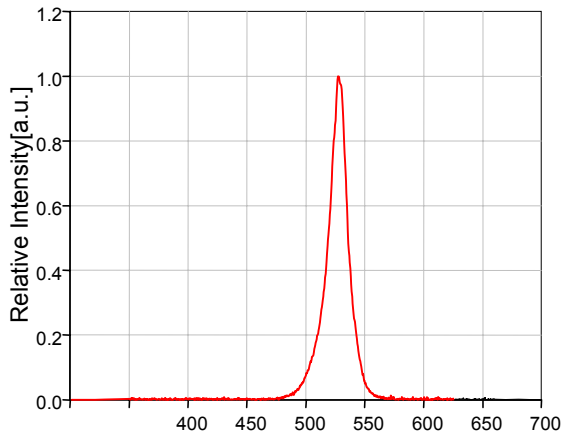
■ Lead Temperature vs. Relative Luminosity



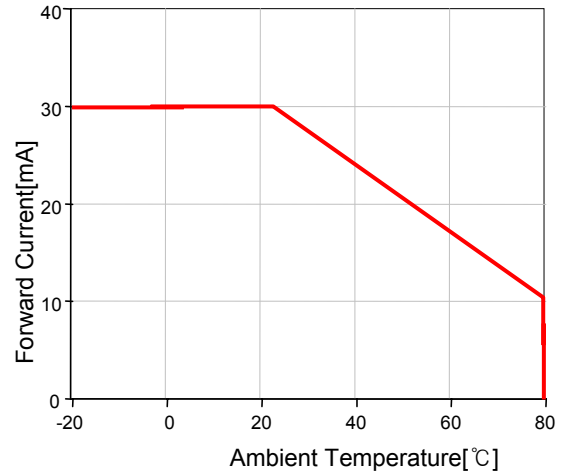
■ Forward Voltage vs. Forward Current



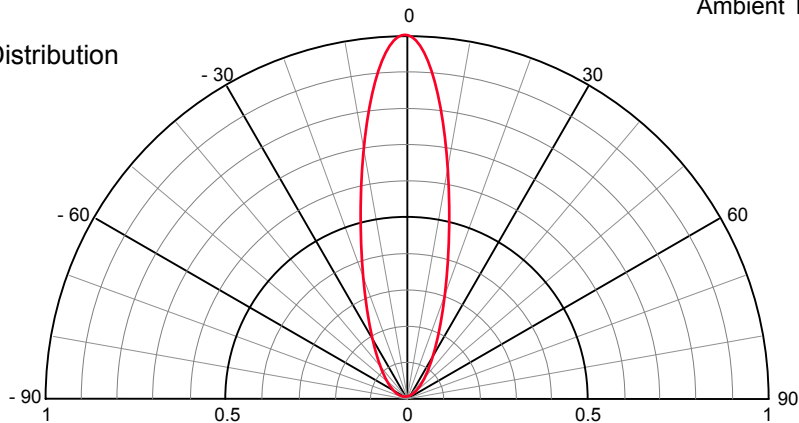
■ Luminous Spectrum



■ Ambient Temperature vs. Forward Current



■ Spatial Distribution



Data subject to change.



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### 7. Inspection Standards

7 - 1 In production line, 100% inspection for electro-optical characteristics should be done on following 3 items.

- VF , IR , Iv

7 - 2 Outgoing inspection be done to the standards as below.

- MIL-STD-104D, S-3, AQL 1.0%
- Items: VF, IR, Iv,  $\lambda_p$

### 8. Packing Standards

8 – 1.Taping :

Standard taping provided. Or user's request.

8 – 2 Bulk Packing :

In one vinyl pack, 500 or 1,000 LEDs are inserted. Or user's request.

### 9. Caution on usage

9 - 1 Be careful never to exceed , even momentarily, the absolute maximum ratings specified in the data sheet.

9 - 2 ACROSENTEC will not be held responsible for any damage to the user that may result from accidents or any other reasons during operation of the user such as use in excess of the absolute maximum ratings, or not keeping the matters that demand special attention.

9 - 3 Store and use where there is no corrosive gas.

9 - 4 The bending or cutting of the lead should be done in room temperature and no force applied on the package.