

# SPECIFICATION

Customer: \_\_\_\_\_

Item: **LED LAMP**

Part No.: **BT50BCS-UG-UP126**

RD No.: **0808014**

Date: **2009-2-7**

Customer Approval:

Approved by: *Electrónica S.A. de C.V.*

Checked by: \_\_\_\_\_

QC: \_\_\_\_\_

Approved by	Checked by	Prepared by
江忠平	朱海龙	李文丽

# 5MM ROUND LED LAMP

## PART NO.: BT50BCS-UG-UP126



**ATTENTION  
OBSERVE  
PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC**

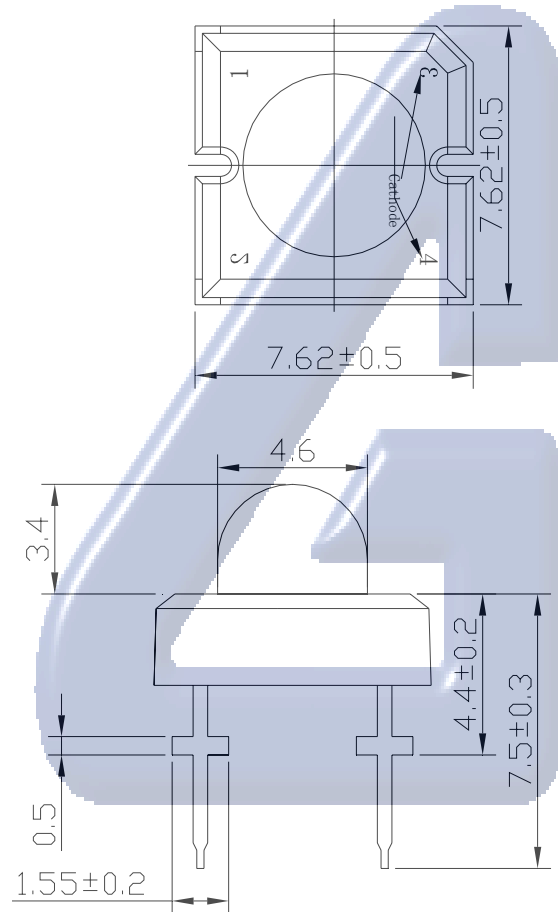
### Features

- \* High intensity
- \* Reliable and rugged
- \* Low current requirement
- \* IC compatible

### Description

The blue LED lamps are made with InGaN chips and water clear epoxy resin.

### Package Dimensions



*Electrónica S.A. de C.V.*

#### Note:

- 1.All dimensions are in millimeters(inches).
- 2.Tolerance is  $\pm 0.25\text{MM}(.010\text{'})$  unless otherwise noted..
- 3.Specifications are subject to change without notices.

Part NO.	LED Chip		Lens Color
	Material	Emitting Color	
BT50BCS-UG-UP126	InGaN	blue	Water Clear

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

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	120	mW
Reverse Voltage	Vr	5	V
D.C. Forward Current	If	30	mA
Peak Current (1/10 Duty Cycle , 0.1 ms Pulse Width)	If(Peak)	100	mA
Operating Temperature Range	Topr	-40to+85	°C
Storage Temperature Range	Tstg	-40to+100	°C
Lead Soldering Temp.(1.6mm from body) for 5 seconds		260	°C

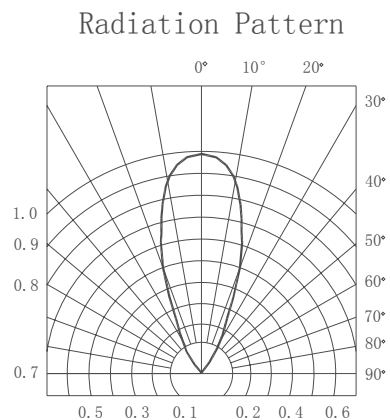
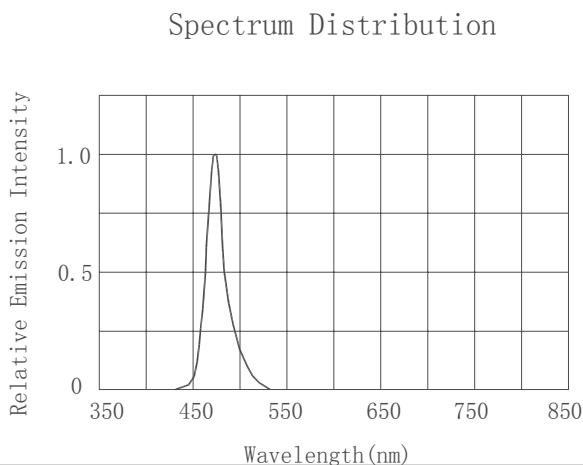
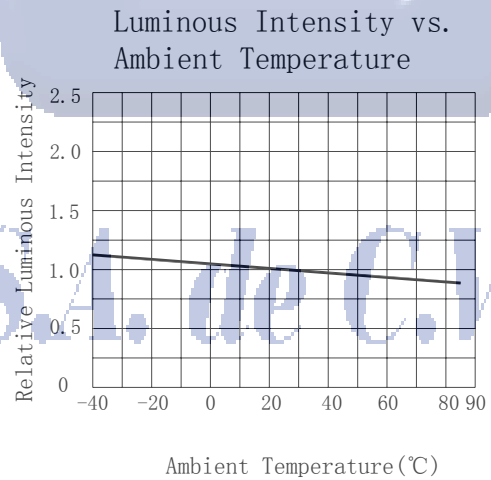
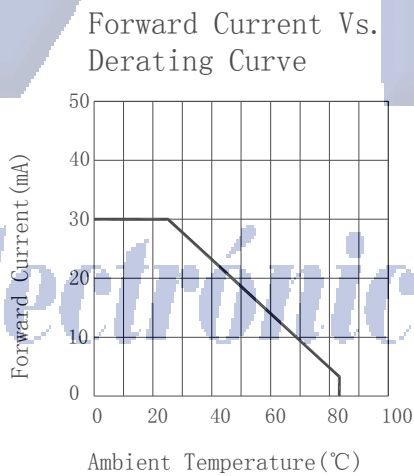
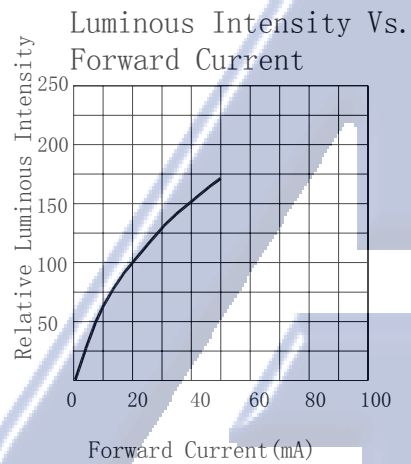
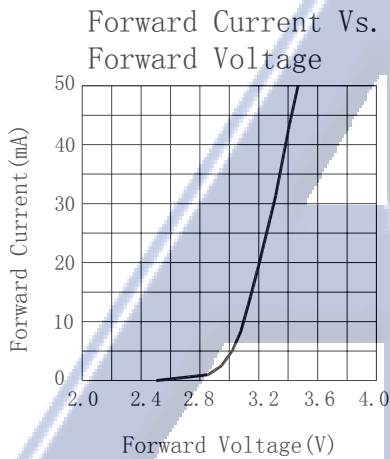
#### Electrical/Optical Characteristics at Ta=25°C :

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	Iv	IF=20mA	1000		3000	mcd
Forward Voltage	Vf	IF=20mA	2.9	3.2	4.0	V
Peak Wavelength	$\lambda_P$	IF=20mA		465		nm
Dominant Wavelength	$\lambda_D$	IF=20mA	465	467	475	nm
Reverse Current	IR	VR=5V			10	uA
Viewing Angle	2 $\theta$ 1/2	IF=20mA		30		Deg
Spectrum Line Halfwidth	$\Delta\lambda$	IF=20mA		25		nm
Color Rendering Index Calculation	Spm	X				
	Spm	Y				
Color Temperature						k

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### ■ Typical Electrical/Optical Characteristics Curve:(25 °C Ambient Temperature Unless Otherwise Noted)



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#### Reliability Test Method :

Test Item	Test Condition	Duration Time
Operation Life	If=20mA / Ta=25°C	168hrs
Storage at High Temperature	Ta=100°C	168hrs
Storage at Low Temperature	Ta=-40°C	168hrs
Storage at High Temperature/High Humidity	Ta=85°C/RH=85%	168hrs
Operating at High Temperature	Ta=85°C / If=20mA	168hrs
Operating at Low Temperature	Ta=25°C / If=20mA	168hrs
Thermal Shock	Ta/T=100°C/30min~ -40°C/30min	10 cycles
Solderability	Tsol=260°C	5 sec

*Electrónica S.A. de C.V.*

#### Criteria for Judging The Damage:

Item	Symbol	Test Condition	Criteria for Judgment	
			Min.	Max.
Luminous Intensity	Iv	IF=20mA	Initial Data *0.8	-----
Forward Voltage	VF	IF=20mA	-----	Initial Data x1.1
Reverse Current	IR	VR=5V	-----	20uA