

**Harvatek International 5.0mm Round LED LAMP**  
**HV-8NG15WCXL**

Official Product	HV-8NG15WCXL	Customer Part No.	Data Sheet No.
	*****	*****	HV-8NG15WCXL
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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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## Compliance and Certification

ISO9002, QS9000 and ISO14001 Certified

RoHS Compliant



## Orderable Information

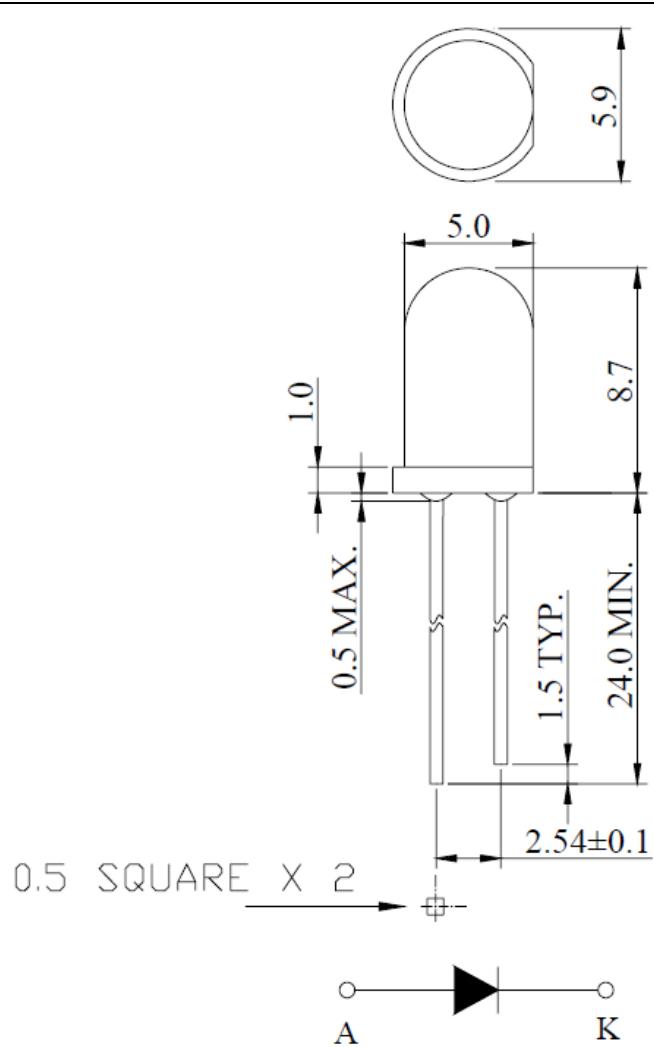
**H V - 8 N G 1 5 W C X L**

Series Name	Color Code	remark
<b>HV=</b> <b>Harvatek Round</b> <b>Led LAMP</b>	<b>8NG =</b> <b>5.0mm Round Lamp, 8.7mm Lens.</b> <b>InGaN/Sapphire 520nm True Green chip.</b> <b>15 = Viewing angle 15 deg.</b> <b>WC = Water Clear.</b> <b>XL = HARVATEK part no.</b>	

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## Features:

- Stable Color
- Popular 5.0mm through hole package, 8.7mm lens height.
- Water Clear lens



## Notes:

1. All dimensions are in mm.
2. Tolerance is  $\pm 0.25$ mm unless otherwise noted.

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

Parameter	Symbol	Rating	Unit
Power Dissipation	P <sub>D</sub>	120	mW
Reverse Voltage	V <sub>R</sub>	5	V
D.C. Forward Current	I <sub>f</sub>	30	mA
Reverse (Leakage) Current	I <sub>r</sub>	50	μA
Peak Current(1/10Duty Cycle,0.1ms Pulse Width.)	I <sub>f</sub> (Peak)	100	mA
Operating Temperature Range	T <sub>opr</sub>	-25 to +85	°C
Storage Temperature Range	T <sub>stg</sub>	-40 to +100	°C
Soldering Temperature(1.6mm from body)	T <sub>sol</sub>	Dip Soldering : 260°C for 5 sec. Hand Soldering : 350°C for 3 sec.	
Electrostatic discharge	ESD	6000	V

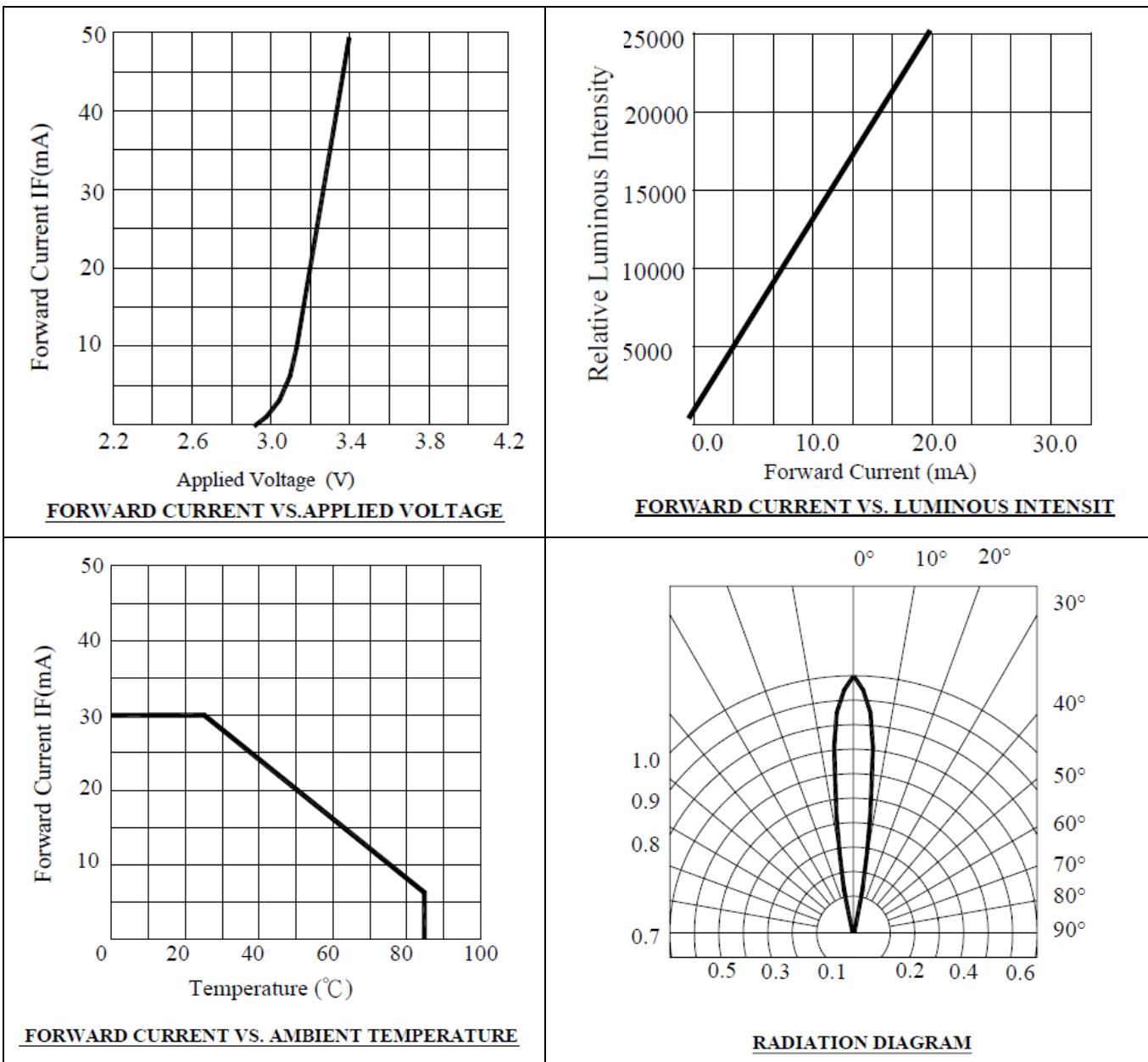
**Electrical and Optical Characteristic**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	I <sub>v</sub>	I <sub>f</sub> =20mA	8500	25000		mcd
Forward Voltage	V <sub>f</sub>	I <sub>f</sub> =20mA		3.2	4.0	V
Dominant Wavelength	λ <sub>d</sub>	I <sub>f</sub> =20mA		520		nm
Reverse (Leakage) Current	I <sub>r</sub>	V <sub>r</sub> =5V			50	μA
Viewing Angle	2θ 1/2	I <sub>f</sub> =20mA		15		deg
Spectrum Line Halfwidth	Δλ	I <sub>f</sub> =20mA		35		nm

Notes:1. The datas tested by IS tester.

2. Customer's special requirements are also welcome.

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**Typical Electrical/Optical Characteristic Curves**

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## Precautions :

### TAKE NOTE OF THE FOLLOWING IN USE OF LED

#### 1. Temperature in use

Since the light generated inside the LED needs to be emitted to outside efficiently, a resin with high light transparency is used; therefore, additives to improve the heat resistance or moisture resistance (silica gel, etc) which are used for semiconductor products such as transistors cannot be added to the resin.

Consequently, the heat resistant ability of the resin used for LED is usually low; therefore, please be careful on the following during use.

Avoid applying external force, stress, and excessive vibration to the resins and terminals at high temperature. The glass transition temperature of epoxy resin used for the LED is approximately 120-130°C.

At a temperature exceeding this limit, the coefficient of liner expansion of the resin doubles or more compared to that at normal temperature and the resin is softened.

If external force or stress is applied at that time, it may cause a wire rupture.

#### 2. Soldering

Please be careful on the following at soldering.

After soldering, avoided applying external force, stress, and excessive vibration until the products go to cooling process (normal temperature), <Same for products with terminal leads>

##### (1) Soldering measurements:

Distance between melted solder side to bottom of resin shall be 1.6mm or longer.

##### (2) Dip soldering :

Pre-heat: 90°C max. (Backside of PCB), Within 60 seconds.

Solder bath: 260±5°C (Solder temperature), Within 5 seconds.

##### (3) Hand soldering: 350°C max. (Temperature of soldering iron tip), Within 3 seconds.

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**3. Insertion**

Pitch of the LED leads and pitch of mounting holes need to be same.

**4. Others**

Since the heat resistant ability of the LED resin is low, SMD components are used on the same PCB, please mount the LED after adhesive baking process for SMD components. In case adhesive baking is done after LED lamp insertion due to a production process reason, make sure not to apply external force, stress, and excessive vibration to the LED and follow the conditions below.

Baking temperature: 120°C max. Baking time: Within 60 seconds.

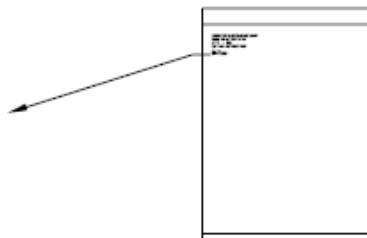
If soldering is done sequentially after the adhesive baking, please perform the soldering after cooling down the LED to normal temperature.

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## Packing

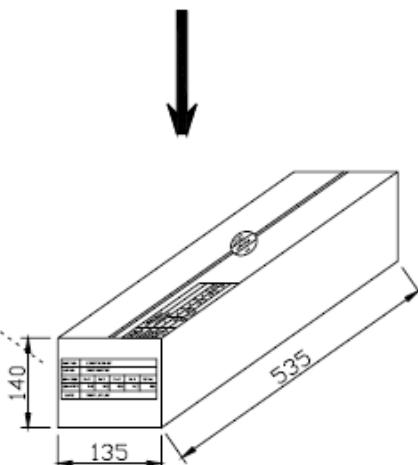
PLASTIC PACKAGE  
QUANTITY: 200 PCS

HARVATEK CORP.
PART NO : XXXX-XX
QTY : PCS
LOT NO : XXXXXXXXXX
DATE :
BIN CODE:



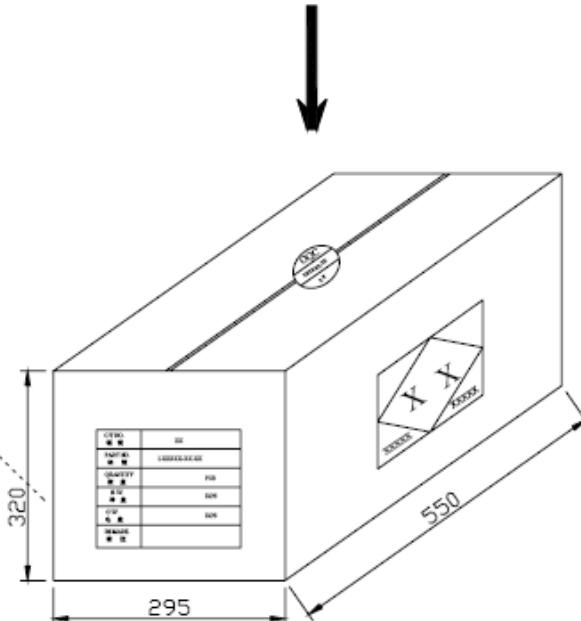
INNER BOX  
QUANTITY: 40 PACKETS  
TOTAL: 8,000 PCS

PART NO.	XXXXXX-XX-XX				
LOT NO.	XXXXXXXXXXXX				
BIN CODE	Xx X	Xx X	Xx X	Xx X	TOTAL
QUANTITY	PCS	PCS	PCS	PCS	PCS
DATE	XXXX, XX, XX				



OUTER CARTON  
QUANTITY: 4 BOX  
TOTAL: 32,000 PCS

C/T NO. 箱號	XX
PART NO. 料號	XXXXXX-XX-XX
QUANTITY 數量	PCS
N.W. 淨重	KGS
G.W. 毛重	KGS
REMARK 備註	



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**Revision History**

Revision	Page	Version No.	Revision Date
Initial Release		1.0	05-20-2014

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