

**Harvatek 5.0mm Round LED LAMP****HV-62R3303C-R3-L50-E0203**

Official Product	HV-62R3303C-R3-L50-E0203	Customer Part No.		Data Sheet No.
	*****	*****		CDAE-010-802
Specifications are subject to change without notice. Data and drawings herein are copyrighted.		Mar. 13 2020	Version of 1.0	Page 1/11

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## LIFE SUPPORT POLICY

HARVATEK's products are not authorized for use as critical components in life support devices or systems without the express written approval of the President of HARVATEK or HARVATEK INTERNATIONAL. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
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 - 62 R 3303 C - R3 - L50 - E0203**

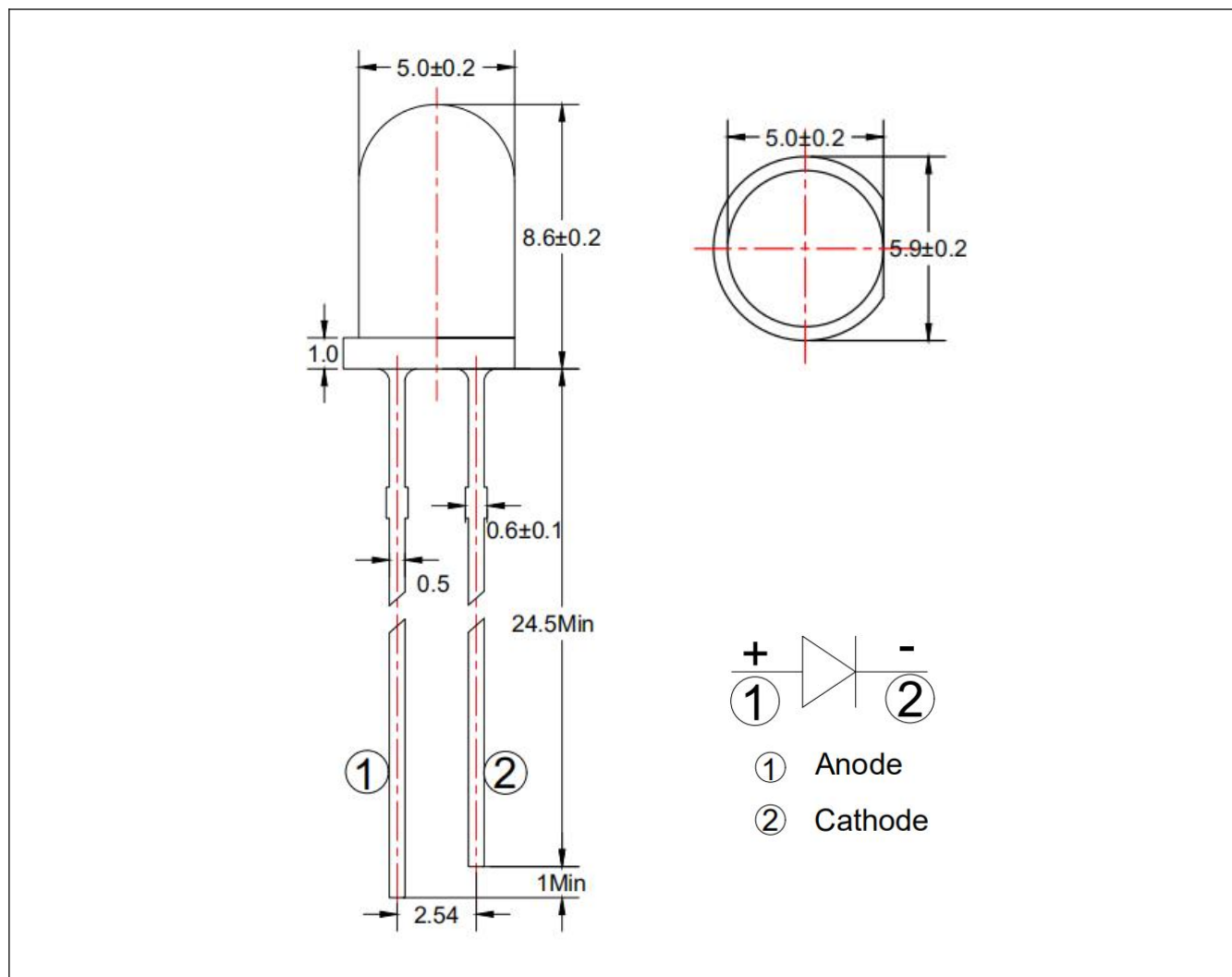
Series Name	Color Code	Remark
HV : HARVATEK	62R3303: 5.0mm Round LED LAMP,8.6mm Lens. AlGaInP 622nm Red chip C : Water Clear R3-L50:HARVATEK Part No.	E0203: Customer Product Code

## Features:

- Stable Color
- Popular 5.0mm through hole package, 8.6mm lens height.
- Water Clear lens

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## Package Dimensions:



### Notes:

- 1.All dimensions are millimeters.
- 2.Tolerance is  $\pm 0.25$ mm unless otherwise noted.
- 3.Specifications are subject to change without notice.

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

Parameter	Symbol	Rating	Unit
Forward Current	I <sub>F</sub>	30	mA
Operating Temperature	T <sub>opr</sub>	-40to+85	°C
Storage Temperature	T <sub>stg</sub>	-40to+100	°C
Soldering Temperature*1	T <sub>sol</sub>	260±5	°C
Power Dissipation	P <sub>d</sub>	75	mW
Reverse Voltage	V <sub>R</sub>	5	V
Peak Forward Current*2	I <sub>FP</sub>	0.1	A

\*1:Soldering time  $\leq$  5 seconds. \*2 Pulse Width  $\leq$  100  $\mu$  s and Duty  $\leq$  1%.

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## Electrical and Optical Characteristic

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=20\text{ mA}$	/	2.0	2.4	V
Reverse Current	$I_R$	$V_R=5\text{ V}$	/	/	10	$\mu\text{A}$
Luminous Intensity	$I_V$	$I_F=20\text{ mA}$	20000	/	53000	mcd
Viewing Angle	$2\theta_{1/2}$	$I_F=20\text{ mA}$	/	15	/	deg
Dominant Wavelength	$\lambda_d$	$I_F=20\text{ mA}$	618	623	/	nm
Peak Wavelength	$\lambda_p$	$I_F=20\text{ mA}$	620	625	/	nm
Spectrum Radiation Bandwidth	$\Delta\lambda$	$I_F=20\text{ mA}$	/	45	/	nm

Notes:  $\theta_{1/2}$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

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**Specifications for Bin Grading:**

I <sub>v</sub> (mcd)		
Grade	Min.	Max.
Z4	20000	32000
Z5	25000	40000
Z6	33000	53000

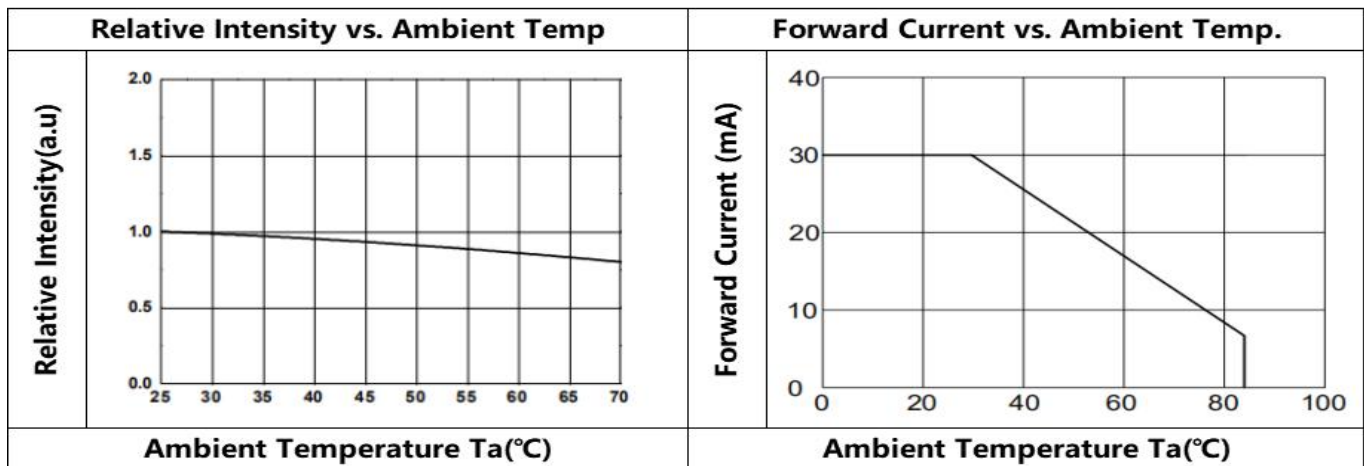
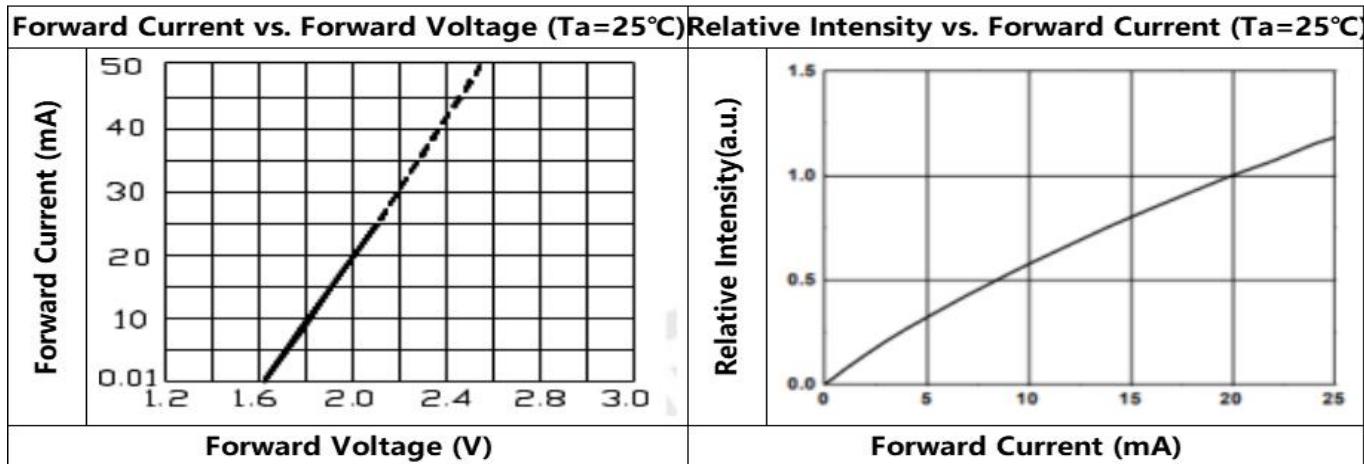
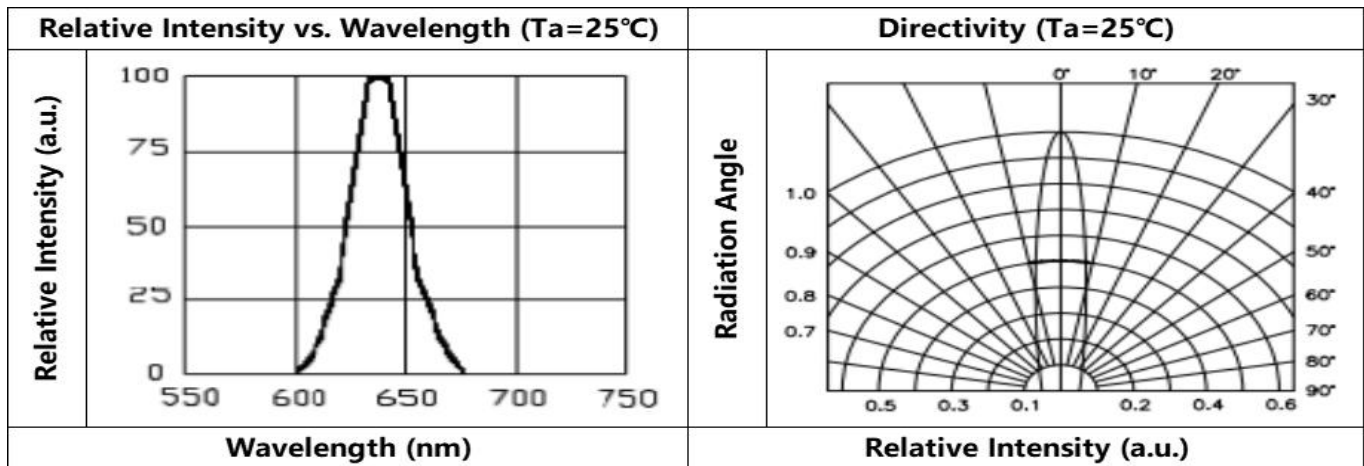
$\lambda_d$ (nm)		
Grade	Min.	Max.
01	618	621
1	620	623
2	622	625
3	624	627
4	626	629
5	628	631

## Notes:

- 1.Luminous intensity: +/-15%.
- 2.Wavelength: +/-1nm.

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## Typical Electro-Optical Characteristics Curves



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### Reliability test items and conditions:

The reliability of products shall be satisfied with items listed below.

Confidence level: 97%

LTPD:3%

No	Item	Test Conditions	Test Hours/Cycle	Sample Size	Failure Judgment Criteria	Ac/Er
1	Solder Heat	TEMP:260°C±5°C	10 SEC	76 PCS	$I_v \leq I_{vt} * 0.5$ or $V_f \geq U$ or $V_f \leq L$	0/1
2	Temperature Cycle	H:+100°C 15min ∫ 5min L:-40°C 15min	300 CYCLES	76 PCS		0/1
3	Thermal Shock	H:+100°C 5min ∫ 10sec L:-10°C 5min	300 CYCLES	76 PCS		0/1
4	High Temperature Storage	TEMP:100°C	1000 HRS	76 PCS		0/1
5	Low Temperature Storage	TEMP:-40°C	1000 HRS	76 PCS		0/1
6	DC Operating Life	TEMP:25°C IF=20mA	1000 HRS	76 PCS		0/1
7	High Temperature / High Humidity	85°C/85%RH	1000 HRS	76 PCS		0/1

Note:  $I_{vt}$ : To test  $I_v$  value of the chip before the reliability test.

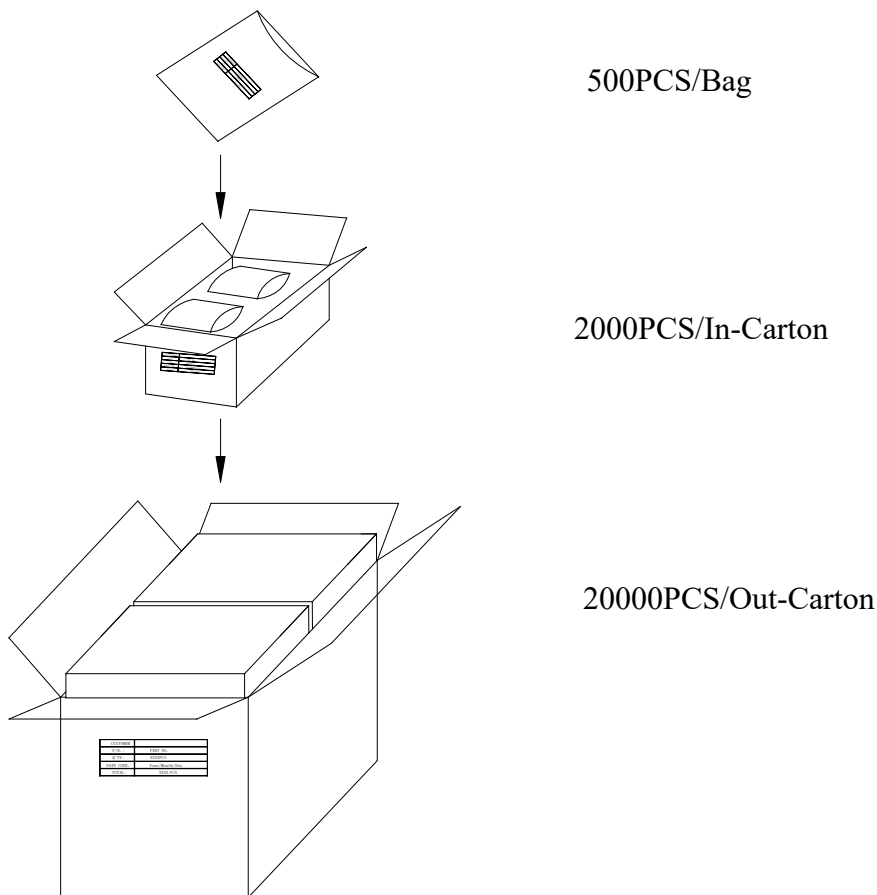
$I_v$ : The test value of the chip that has completed the reliability test






U: Upper Specification Limit

L: Lower Specification Limit

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## Packing Specification:



	<b>HARVATEK</b>	
<b>CPN:</b>		<b>RoHs</b>
<b>P/N:</b> 		
HV-62R3303C-R3-L50-E0203		
<b>QTY:</b> 	<b>CAT:</b>	
	<b>HUE:</b>	
<b>LOT NO:</b> 	<b>REF:</b>	

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**Revision History**

Revision	Page	Version No.	Revision Date
Initial Release		1.0	03-13-2020

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