

Harvatek 3.0mm ROUND LED LAMP**HV-57G2004D**

Official Product	HV-57G2004D	Customer Part No.		Data Sheet No.
	*****	*****		CDAE-010-105
Specifications are subject to change without notice. Data and drawings herein are copyrighted.		Nov. 11 2019	Version of 1.1	Page 1/11

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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 - 57 G 2 0 0 4 D

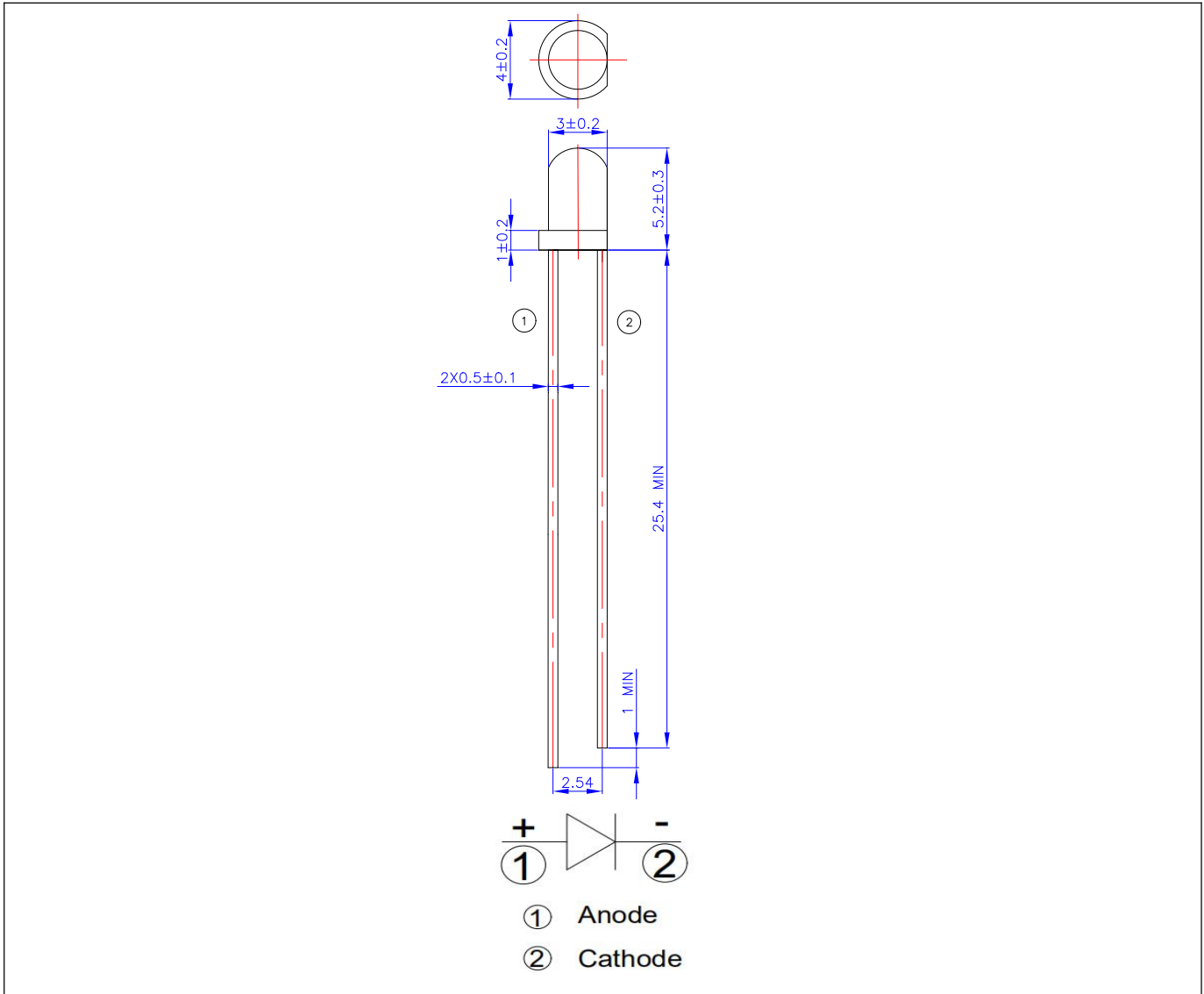
Series Name	Color Code	Remark
HV : HARVATEK	57G2004 : 3.0mm ROUND LED LAMP,5.2mm Lens. AlGaInP 572nm Green Chip D: Green Diffused.	

Features:

- Stable Color
- Popular 3.0mm through hole package, 5.2mm lens height.
- Green Diffused lens.

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Package Dimensions:



Notes:

1. All dimensions are millimeters.
2. Tolerance is ± 0.25 mm unless otherwise noted.
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Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Forward Current	I _F	30	mA
Operating Temperature	Topr	-40to+85	°C
Storage Temperature	Tstg	-40to+100	°C
Soldering Temperature*1	Tsol	260±5	°C
Power Dissipation	P _d	75	mW
Reverse Voltage	V _R	5	V
Peak Forward Current*2	I _{FP}	0.1	A

*1:Soldering time ≦ 5 seconds. *2:Pulse Width ≦ 100 μ s and Duty ≦ 1%

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Electrical and Optical Characteristic

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	IF=20 mA	/	2.0	2.6	V
Reverse Current	I_R	VR= 5 V	/	/	10	μ A
Luminous Intensity	I_V	IF=20 mA	20	60	/	mcd
Viewing Angle	$2\theta_{1/2}$	IF=20 mA	/	60	/	deg
Dominant Wavelength	λ_d	IF=20 mA	566	572	/	nm
Peak Wavelength	λ_p	IF=20 mA	570	575	/	nm
Spectrum Radiation Bandwidth	$\Delta\lambda$	IF=20 mA	/	25	/	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:

Iv (mcd)		
Grade	Min.	Min.
M	20	32
N	25	50
P	40	80
Q	63	125
R	100	200
S	160	320

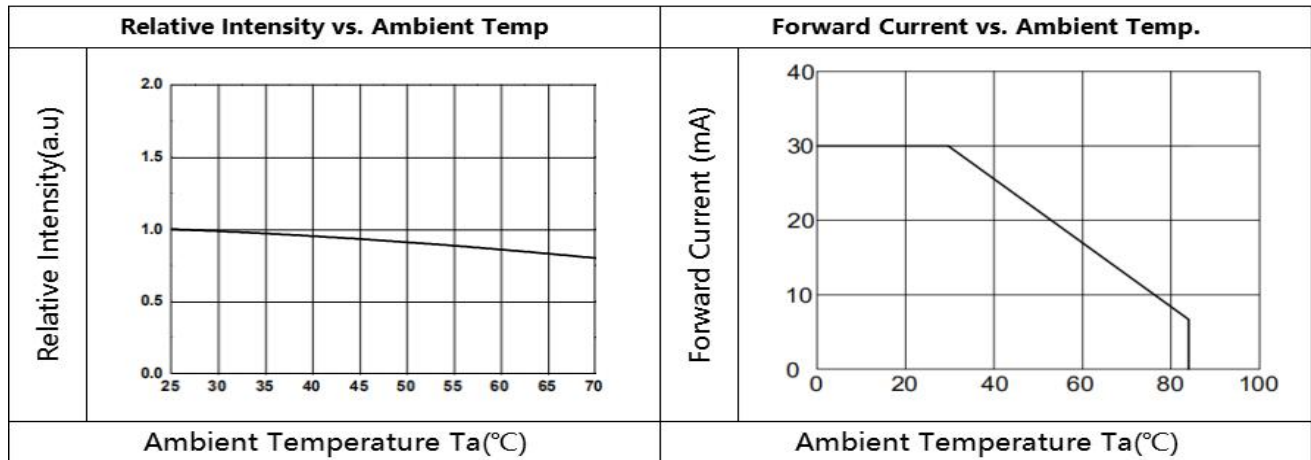
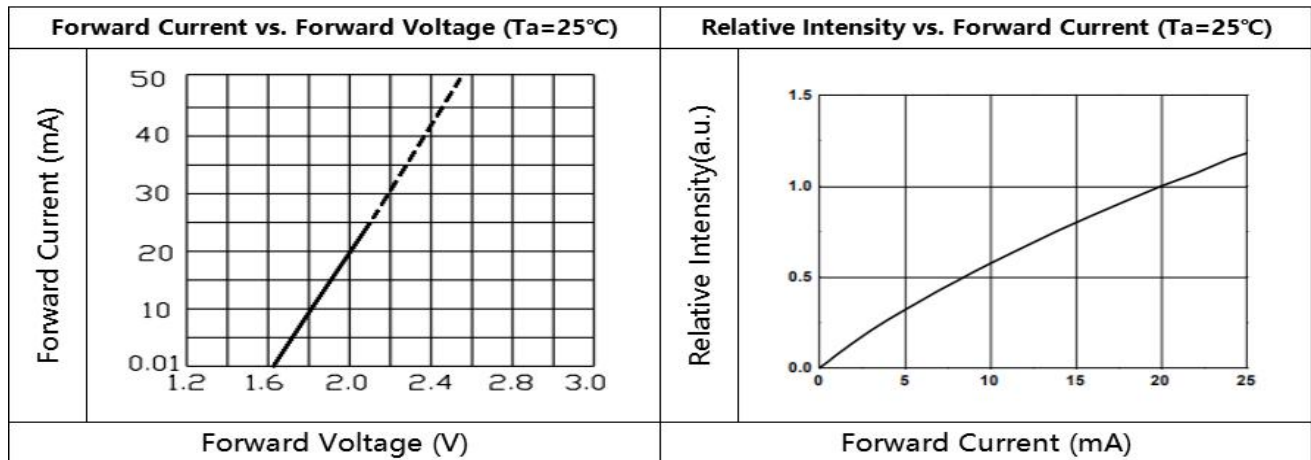
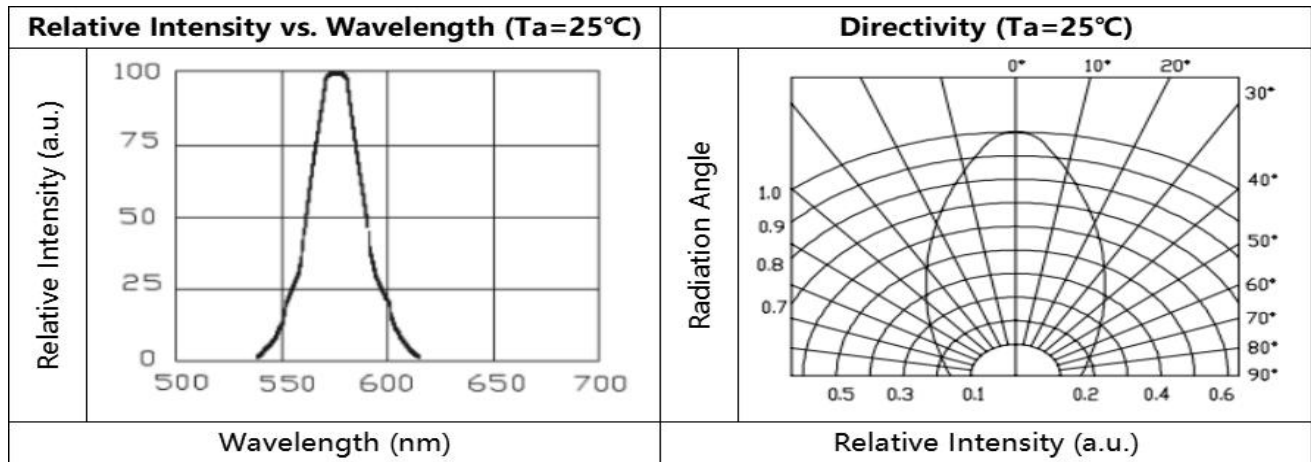
λd (nm)		
Grade	Min.	Max.
5	566	569
6	568	571
7	570	573
8	572	575
9	574	577

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	$I_v \cong I_{vt} * 0.5$ or $V_f \cong U$ or $V_f \cong L$	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.

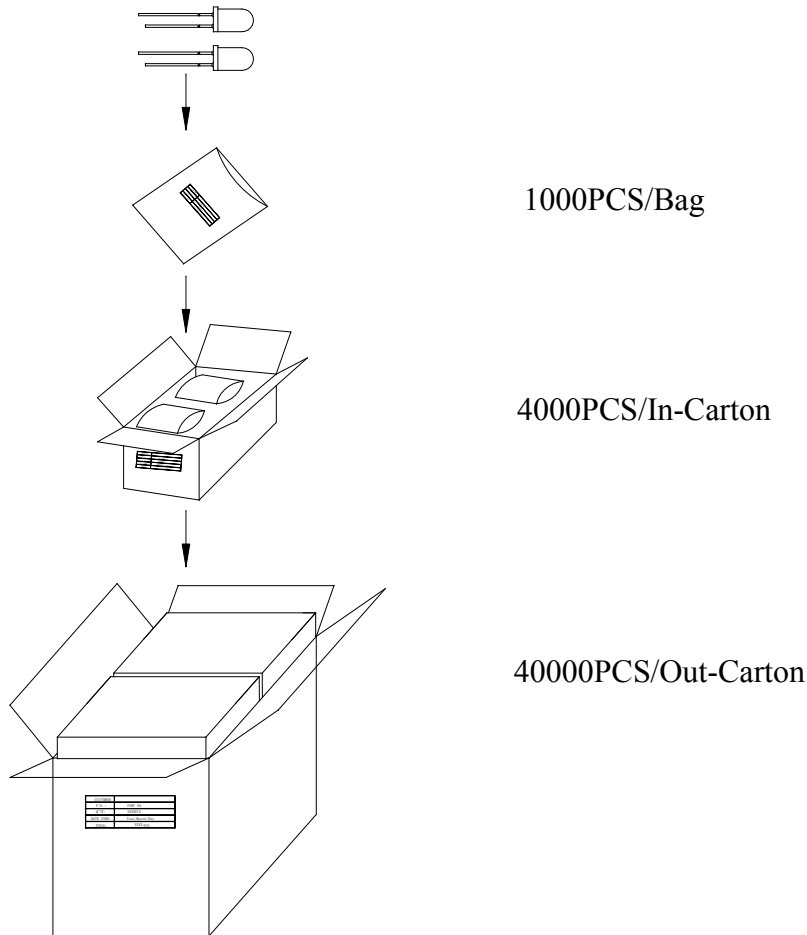
I_v : The test value of the chip that has completed the reliability test

U: Upper Specification Limit

L: Lower Specification Limit

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Packing Specification:



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Revision History

Revision	Page	Version No.	Revision Date
Initial Release		1.0	11-05-2018
Modifies Dominant Wavelength	6	1.1	11-11-2019

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