Harvatek 5.0mm Round LED LAMP WITH HOLDER

HV-3190/310/SYG

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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.

Compliance and Certification

ISO9002, QS9000 and ISO14001 Certified
RoHS Compliant

Orderable Information

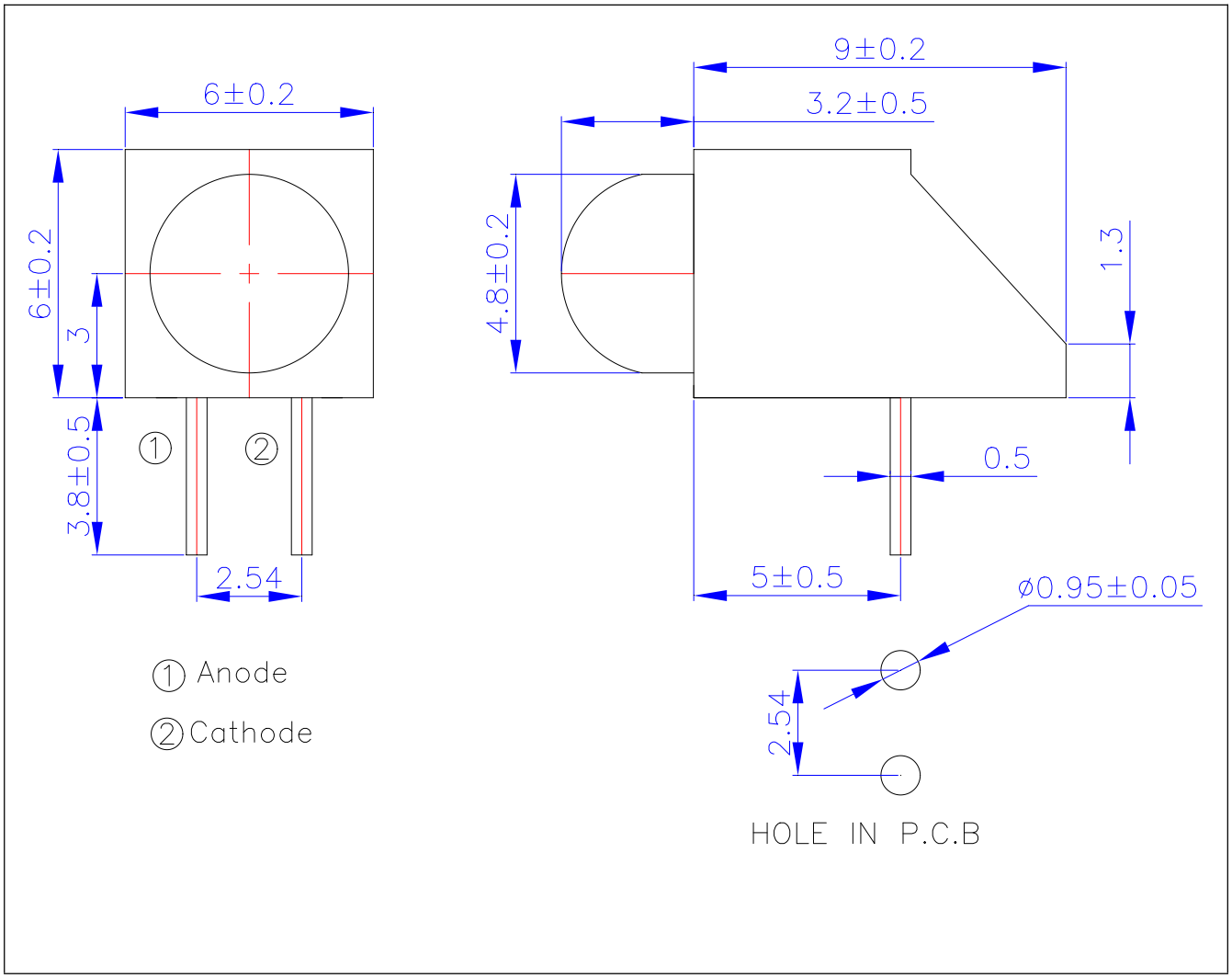
H V - 3 1 9 0 / 3 1 0 / SYG

Series Name	Color Code	Remark
HV : **HARVATEK**	**31: 1 Lamp** **90: HARVATEK Part No.** **310:** **5.0mm Round LED LAMP.** **SYG:** **AlGaInP 571 nm Green Chip**	

Features:

- Stable Color
- Popular 5.0mm through hole package, 3.2mm lens height.
- Green Diffused lens.

Package Dimensions:



Notes:

1.All dimensions are millimeters.

2.Tolerance is +/-0.25mm unless otherwise noted.

3.Specifications are subject to change without notice.

Absolute Maximum Ratings at Ta=25℃

Parameter	Symbol	Rating	Unit
Forward Current	IF	30	mA
Operating Temperature	Topr	-40to+85	℃
Storage Temperature	Tstg	-40to+100	℃
Soldering Temperature*1	Tsol	260±5	℃
Power Dissipation	Pd	75	mW
Reverse Voltage	VR	5	V
Peak Forward Current*2	IFp	0.1	A

*1:Soldering time ≦ 5 seconds. *2 tw=100u second T=10m second.

Electrical and Optical Characteristic

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	VF	IF=20 mA	/	2.0	2.5	V
Reverse Current	IR	VR= 5 V	/	/	10	μA
Luminous Intensity	IV	IF=20 mA	30	100	/	mcd
Viewing Angle	2θ½	IF=20 mA	/	40	/	deg
Dominant Wavelength	λd	IF=20 mA	/	571	/	nm
Peak Wavelength	λρ	IF=20 mA	/	574	/	nm
Spectrum Radiation Bandwidth	Δλ	IF=20 mA	/	25	/	nm

Notes:

1.θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

2.Luminous intensity:+/-15%.

3.Wavelength: +/-1nm.

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℃±5℃	10 SEC	76 PCS	Iv≦Ivt*0.5 or Vf≧U or Vf≦L	0/1
2	Temperature Cycle	H:+100℃ 15min ∫ 5min L:-40℃ 15min	300 CYCLES	76 PCS		0/1
3	Thermal Shock	H:+100℃ 5min ∫ 10sec L:-10℃ 5min	300 CYCLES	76 PCS		0/1
4	High Temperature Storage	TEMP:100℃	1000 HRS	76 PCS		0/1
5	Low Temperature Storage	TEMP:-40℃	1000 HRS	76 PCS		0/1
6	DC Operating Life	TEMP:25℃ IF=20mA	1000 HRS	76 PCS		0/1
7	High Temperature / High Humidity	85℃/85%RH	1000 HRS	76 PCS		0/1

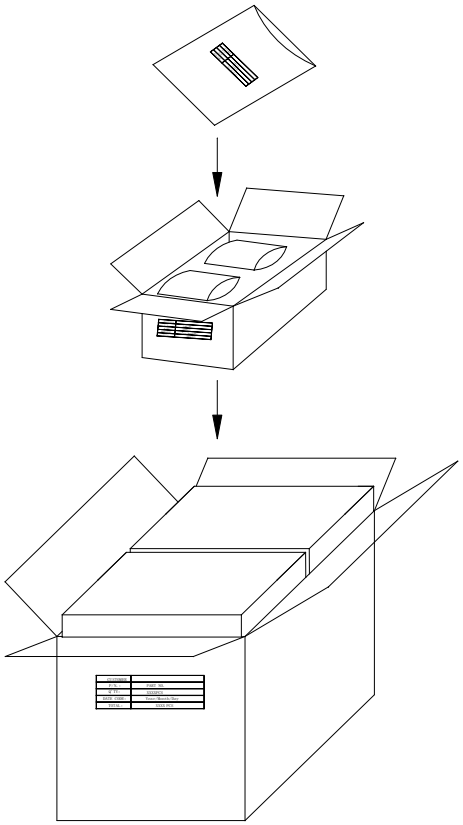
Note：Ivt：To test Iv value of the chip before the reliability test.

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

U：Upper Specification Limit

L：Lower Specification Limit

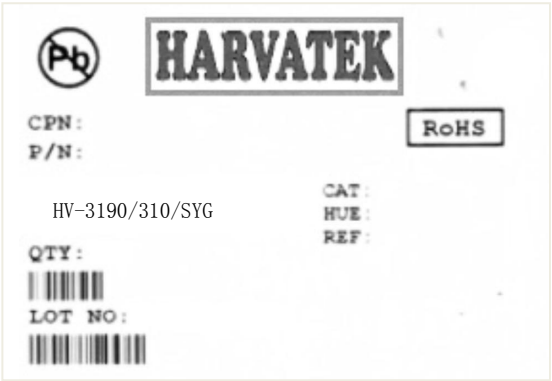
Packing Specification:



500PCS/Bag

2500PCS/Box

25000PCS/Carton



Revision History

Revision	Page	Version No.	Revision Date
Initial Release		1.0	10-154-2019