

Harvatek 3.0mm Round LED LAMP with Holder**HV-32H307B/260/2UY-U1646**

Official Product	HV-32H307B/260/2UY-U1646	Customer Part No.		Data Sheet No.
	*****	*****		HV-32H307B/260/2UY-U1646
Specifications are subject to change without notice. Data and drawings herein are copyrighted.		Sep.05 2023	Version of 1.1	Page 1/12

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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 - 32 H 307B / 260 / 2UY - U1646

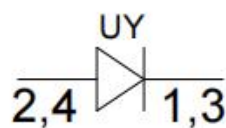
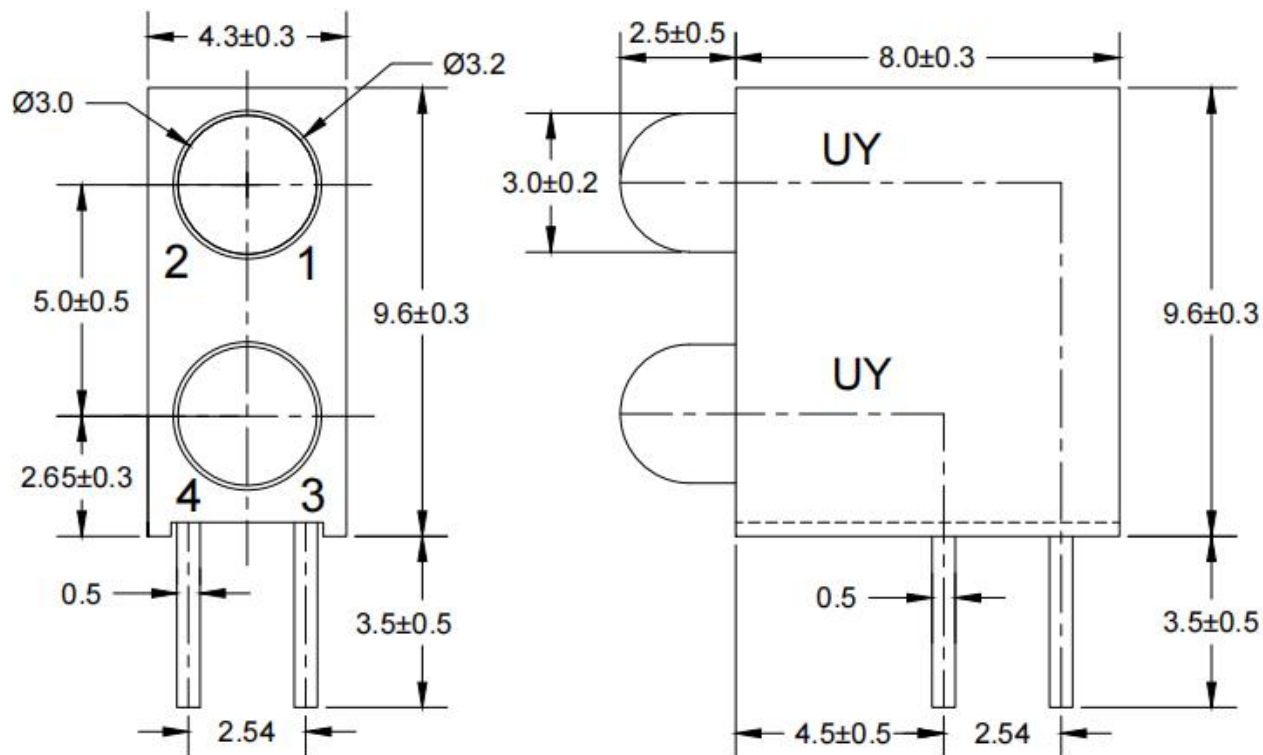
Series Name	Color Code	Remark
HV : HARVATEK	32H307B: Array 2 Lamp. 260: 3.0mm Round LED LAMP. 2UY : GaP 589nm Yellow Chip.	U1646: Customer Product Code

Features:

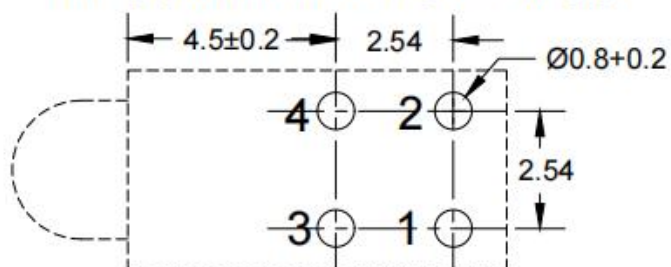
- Stable Color.
- Popular 3.0mm through hole package.
- Yellow diffused lens.

Official Product	HV-32H307B/260/2UY-U1646	Customer Part No.	Data Sheet No.
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			Page 3/12

Package Dimensions:



RECOMMENDED PCB LAYOUT



Notes:

- 1.All dimensions are millimeters.
- 2.Tolerance is +/-0.25mm unless otherwise noted.
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		Page 4/12	

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Forward Current	I_F	30	mA
Operating Temperature	T_{opr}	-40to+85	°C
Storage Temperature	T_{stg}	-40to+85	°C
Soldering Temperature*1	T_{sol}	260	°C
Power Dissipation	P_d	75	mW
Reverse Voltage	V_R	5	V
Peak Forward Current*2	I_{FP}	75	mA

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

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Electrical and Optical Characteristic

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _v	8	15		mcd	I _f =10mA
Viewing Angle	2θ ½	---	60	---	Deg	I _f =10mA
Forward Voltage	V _f	---	2.0	2.5	V	I _f =10mA
Peak Emission Wavelength	λ _P	---	592	---	nm	I _f =10mA
Dominant Wavelength	λ _d	---	589	---	nm	I _f =10mA
Spectral Line Half-Width	Δλ	---	20	---	nm	I _f =10mA
Reverse Current	I _R	---	---	10	μA	V _R =5V

Notes:

θ1/2 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(UY):

Iv (mcd)		
Grade	Min.	Max.
K	8	12.5
L	10	20
M	16	35

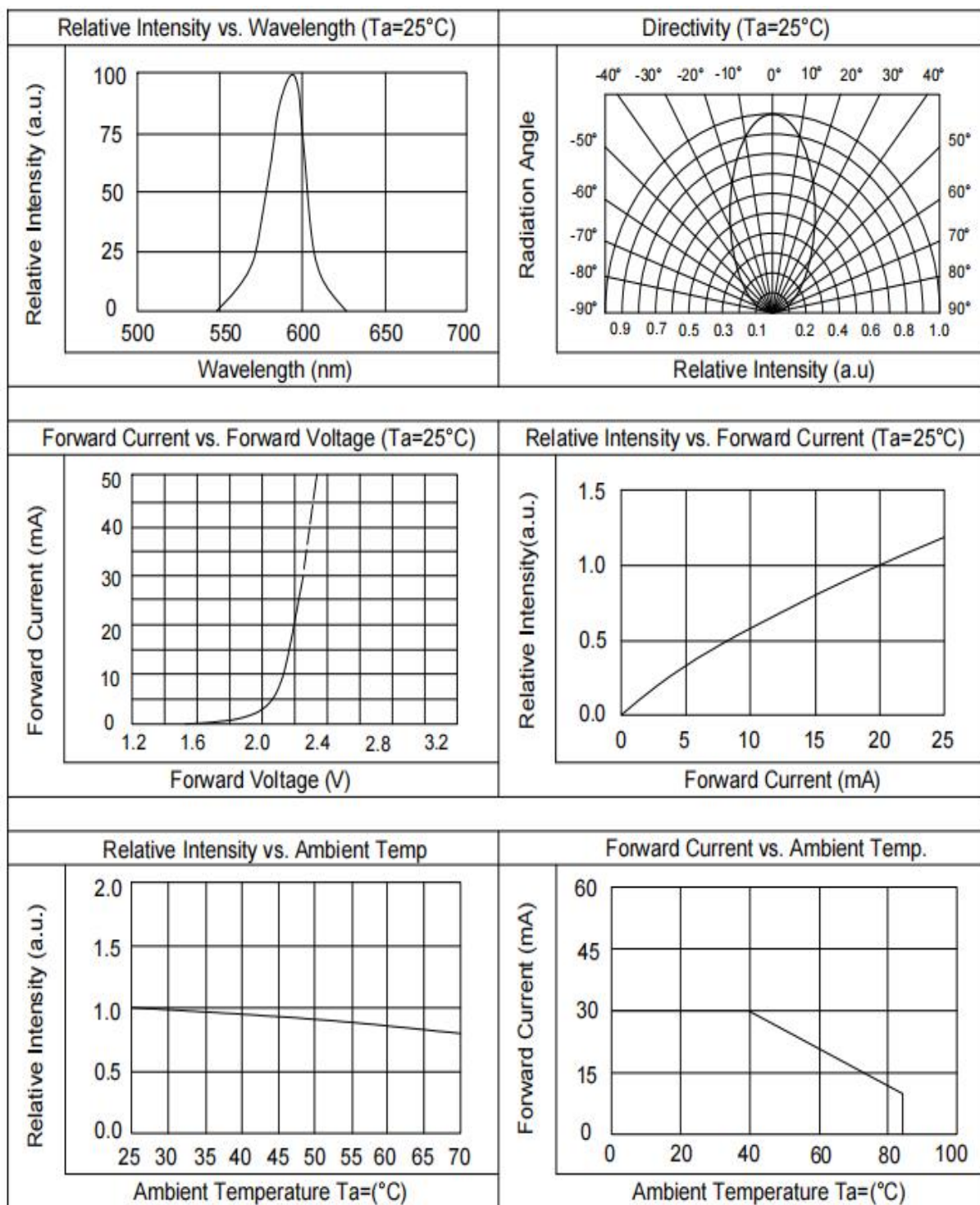
λ_d (nm)		
Grade	Min.	Max.
3	585	588
4	587	590
5	589	592
6	591	594
7	593	595

Notes:

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

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Specifications are subject to change without notice. Data and drawings herein are copyrighted.		Sep.05 2023	Version of 1.1	Page 7/12

Typical Electro-Optical Characteristics Curve



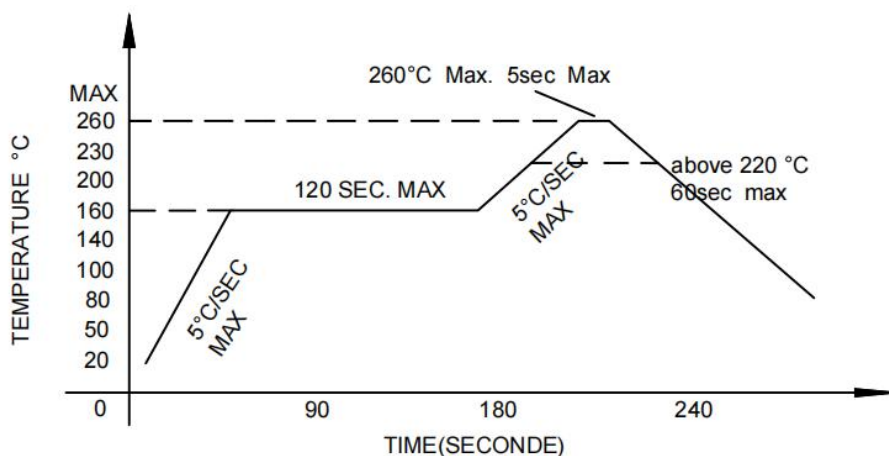
Official Product	HV-32H307B/260/2UY-U1646	Customer Part No.	Data Sheet No.
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Specifications are subject to change without notice. Data and drawings herein are copyrighted.		Sep.05 2023	Page 8/12
		Version of 1.1	

Soldering condition

- Careful attention should be paid during soldering. When soldering, leave more than 2mm from solder joint to Led, and soldering beyond the base of the tie bar is recommended.
- Avoiding applying any stress to the lead frame while the LED are at high temperature particularly when soldering.
- Dip and hand soldering should not be done more than one time.
- After soldering the LED, the epoxy bulb should be protected from mechanical shock or vibration until the LED return to room temperature.
- A rapid-rate process is not recommended for cooling the LED down from the peak temperature.
- Although the recommended soldering conditions are specified in the above table, dip or hand soldering at the lowest possible temperature is desirable for the LED.
- Wave soldering parameter must be set and maintain according to recommended temperature and dwell time in the solder wave.

• Recommended soldering conditions

Hand Soldering		Wave Soldering	
Temp. at tip of iron	300°C Max. (30W Max.)	Preheat temp.	160°C Max. (120 sec Max.)
Soldering time	3 sec Max.	Bath temp. & time	260°C Max., 5 sec Max
Distance	2mm Min.(From solder joint to Led)	Distance	2mm Min. (From solder joint to Led)



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		Page 9/12	

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.

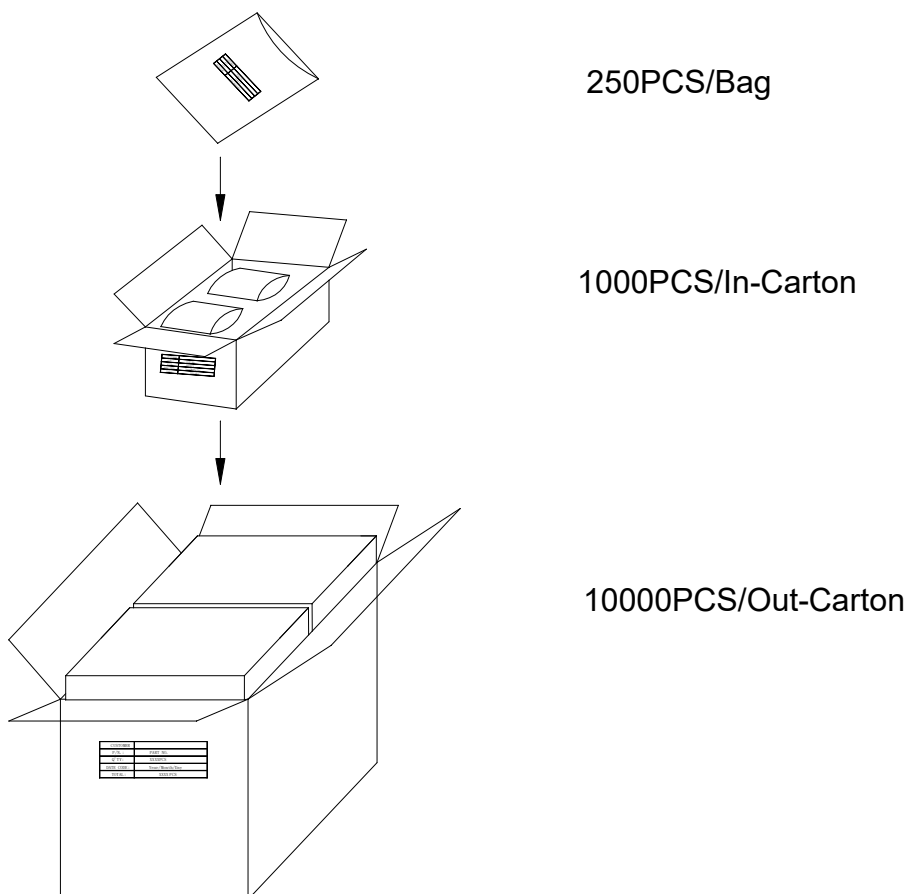
I_v : The test value of the chip that has completed the reliability test.






U: Upper Specification Limit.

L: Lower Specification Limit.

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Specifications are subject to change without notice. Data and drawings herein are copyrighted.		Sep.05 2023	Version of 1.1	Page 10/12

Packing Specification:



	HARVATEK	
CPN:		RoHs
P/N:		
HV-32H307B/260/2UY-U1646		
QTY:		CAT:
		HUE:
LOT NO:		REF:

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	*****	*****	HV-32H307B/260/2UY-U1646
Specifications are subject to change without notice. Data and drawings herein are copyrighted.		Sep.05 2023	Page 11/12

Revision History

Revision	Page	Version No.	Revision Date
Initial Release		1.0	01-11-2023
Modify the graphics and the parameters	4/6/7	1.1	09-05-2023

Official Product	HV-32H307B/260/2UY-U1646	Customer Part No.	Data Sheet No.
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Specifications are subject to change without notice. Data and drawings herein are copyrighted.		Sep.05 2023 Version of 1.1	Page 12/12