

Harvatek 3.0mm Round LED LAMP with Holder

HV-A256B/260/3SURSYGW-R2-F2.85-C0028

Official Product	HV-A256B/260/3SURSYGW-R2-F2.85-C0028	Customer Part No.	Data Sheet No.
	*****	*****	HV-A256B/260/3SURSYGW-R2-F2.85-C0028
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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 - A256B / 260 / 3SURSYGW - R2 - F2.85 - C0028

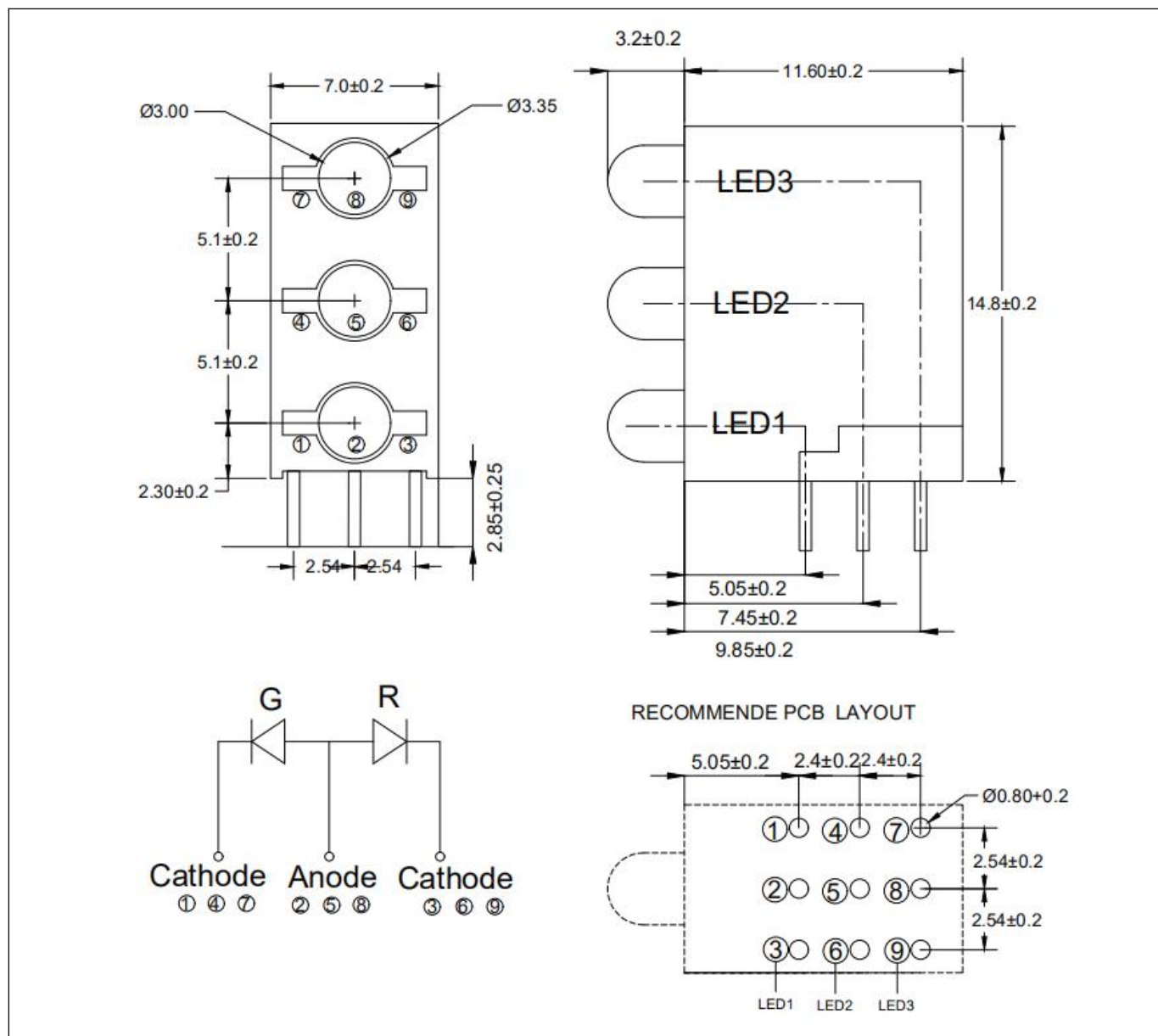
Series Name	Color Code	Remark
HV : HARVATEK	A256B: Array 3 Lamp 260 :3.0mm Round LED Lamp 3SURSYG: AlGaInP 625nm Red Chip. InGaN 570nm Green Chip. W: White Diffused R2-F2.85:HARVATEK Part No.	C0028: Customer Product Code

Features:

- Stable Color
- Popular 3.0mm through hole package.
- White 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
Continuous Forward Current	I_F	SUR	25	mA
		SYG	30	
Reverse Voltage	V_R	5		V
Power Dissipation	P_d	75		mW
Peak Forward Current ($t_w=100\mu$ second $T=10$ m second.)	I_{FP}	75		mA
Operating Temperature	T_{opr}	-25to+85		°C
Storage Temperature	T_{stg}	-25to+85		°C
Soldering Temperature	T_{sol}	260°C for 5 sec		°C

Electrical and Optical Characteristic

Parameter	Symbol		Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_v	SUR	---	45	---	mcd	$I_f=20$ mA
		SYG	---	45	---		
Viewing Angle	$2\theta \frac{1}{2}$	SUR	---	70	---	Deg	$I_f=20$ mA
		SYG	---	70	---		
Forward Voltage	V_f	SUR	1.7	---	2.6	V	$I_f=20$ mA
		SYG	1.7	---	2.6		
Peak Emission Wavelength	λ_P	SUR	---	635	---	nm	$I_f=20$ mA
		SYG	---	565	---		
Dominant Wavelength	λ_d	SUR	615	625	645	nm	$I_f=20$ mA
		SYG	---	570	---		
Spectral Line Half-Width	$\Delta\lambda$	SUR	---	45	---	nm	$I_f=20$ mA
		SYG	---	30	---		
Reverse Current	I_R	SUR/SYG	---	---	10	μ A	$V_R=5$ V

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:(SUR)

Iv (mcd)		
Grade	Min.	Max.
M	16	32
N	25	50
P	40	80
Q	63	125
R	100	200

Notes: Luminous intensity: +/-15%.

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Specifications for Bin Grading:(SYG)

Iv (mcd)		
Grade	Min.	Max.
M	16	32
N	25	50
P	40	80
Q	63	125
R	100	200

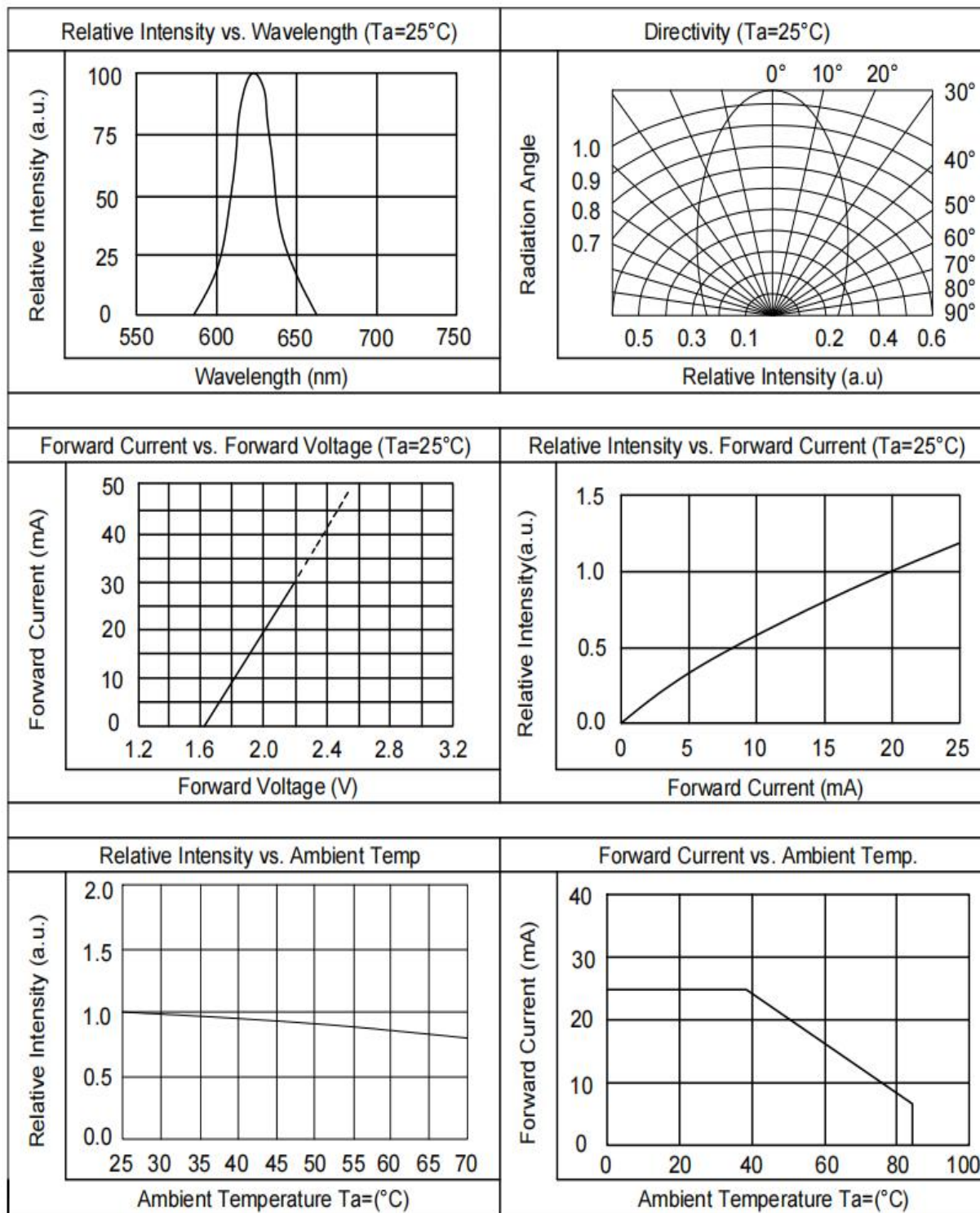
λd (nm)		
Grade	Min.	Max.
5	566	569
6	568	571
7	570	573
8	572	575
9	574	577

Notes:

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

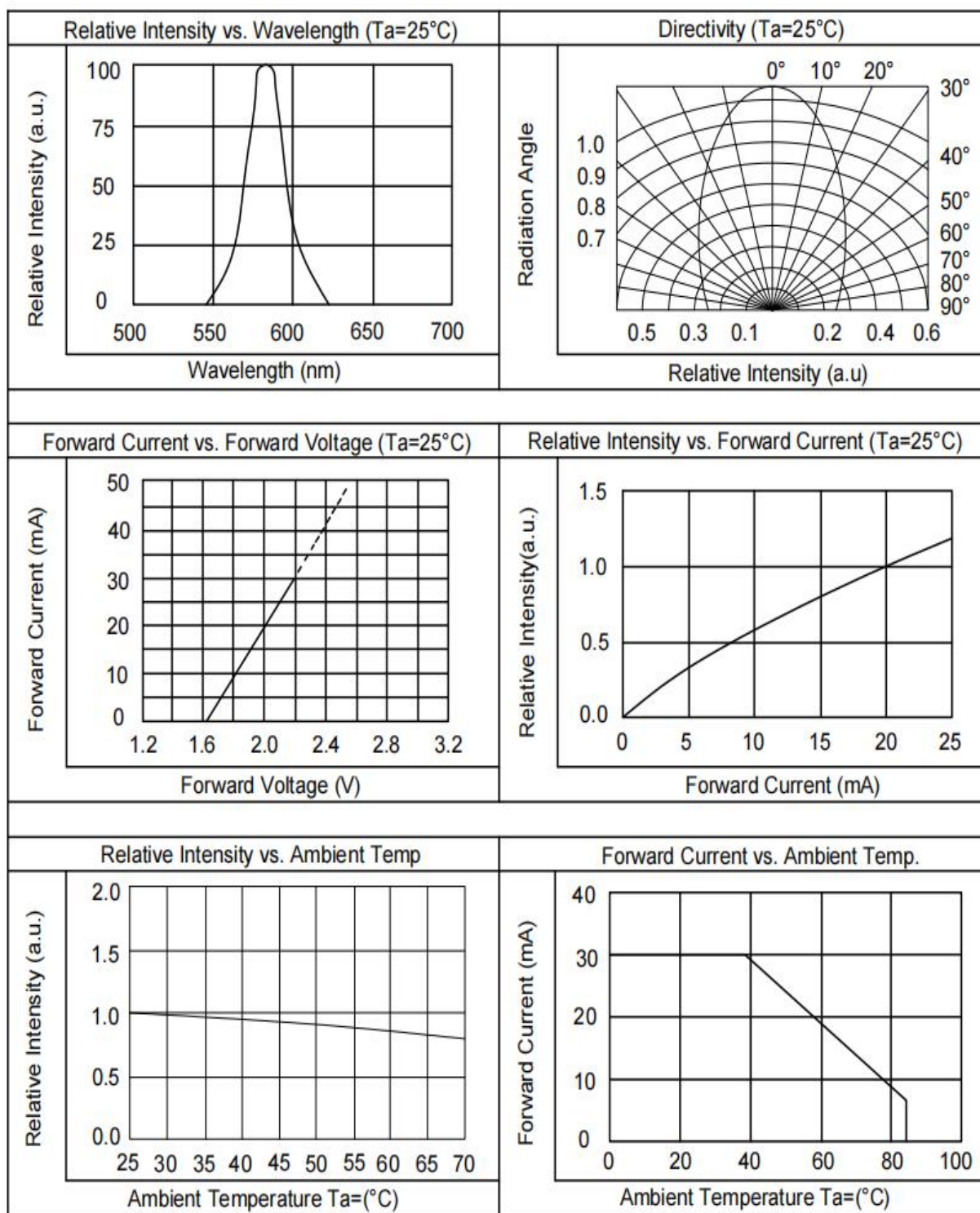
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Typical Electrical / Optical Characteristics Curves(SUR)



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Typical Electrical / Optical Characteristics Curves(SYG)



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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

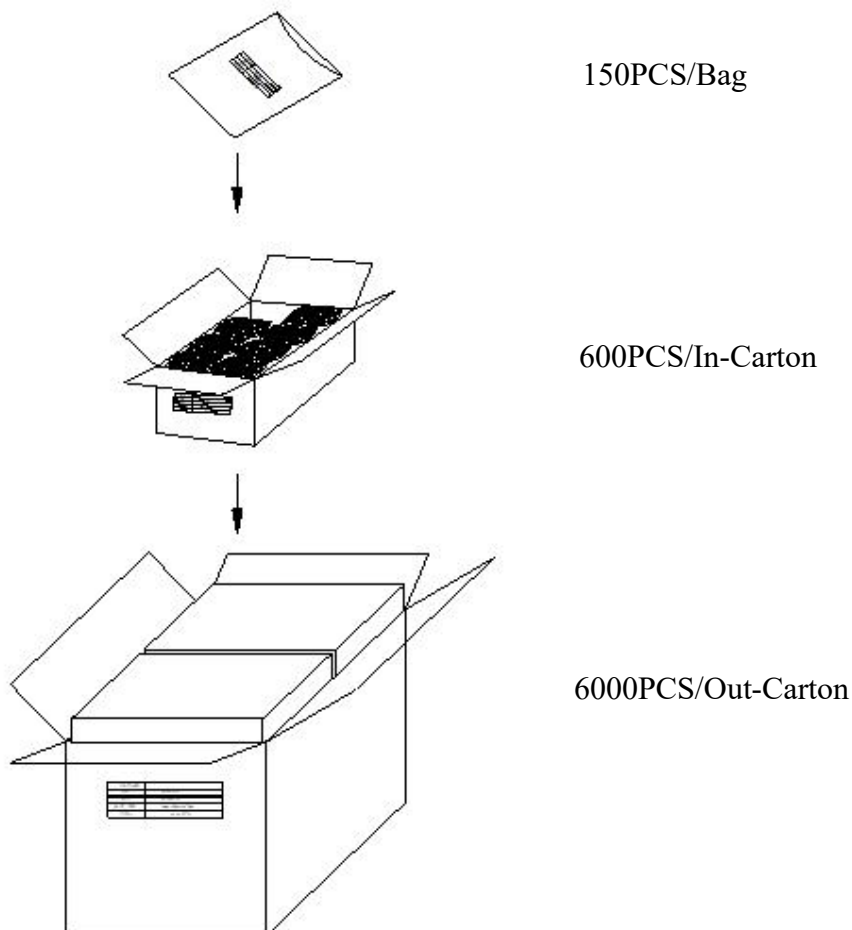
Note: I_{vt} : To test I_v value of the chip before the reliability test.






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:

	HARVATEK	
CPN:		RoHs
P/N:		
		
HV-A256B/260/3SURSYGW-R2-F2.85-C0028		
QTY:		CAT:
		HUE:
LOT NO:		REF:
		

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Revision History

Revision	Page	Version No.	Revision Date
Initial Release		1.0	02-04-2021
Replacement characteristic curve diagram and packing quantity	8/9/11	1.1	05-19-2021

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