

**Harvatek International 5mm round LED lamp**  
**HV-8W15WTXCB-XXXX**

Official Product	HV-8W15WTXCB-XXXX	Customer Part No.	Data Sheet No.
	*****	*****	HV-8W15WTXCB-XXXX
Specifications are subject to change without notice. Data and drawings herein are copyrighted.	Mar. 01 2013	Version of 1.0	Page 1/11

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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 - 8 W 1 5 W T X C B - X X X X

Series Name	Color Code	Customer Code
HV= Harvatek Round LED Lamp	8W =5mm Round Lamp,8.7mm Lens, White 15=View angle 15 deg. WT=Water Transparent XC=HARVATEK Part number code B= Version B	XXXX= Customer code

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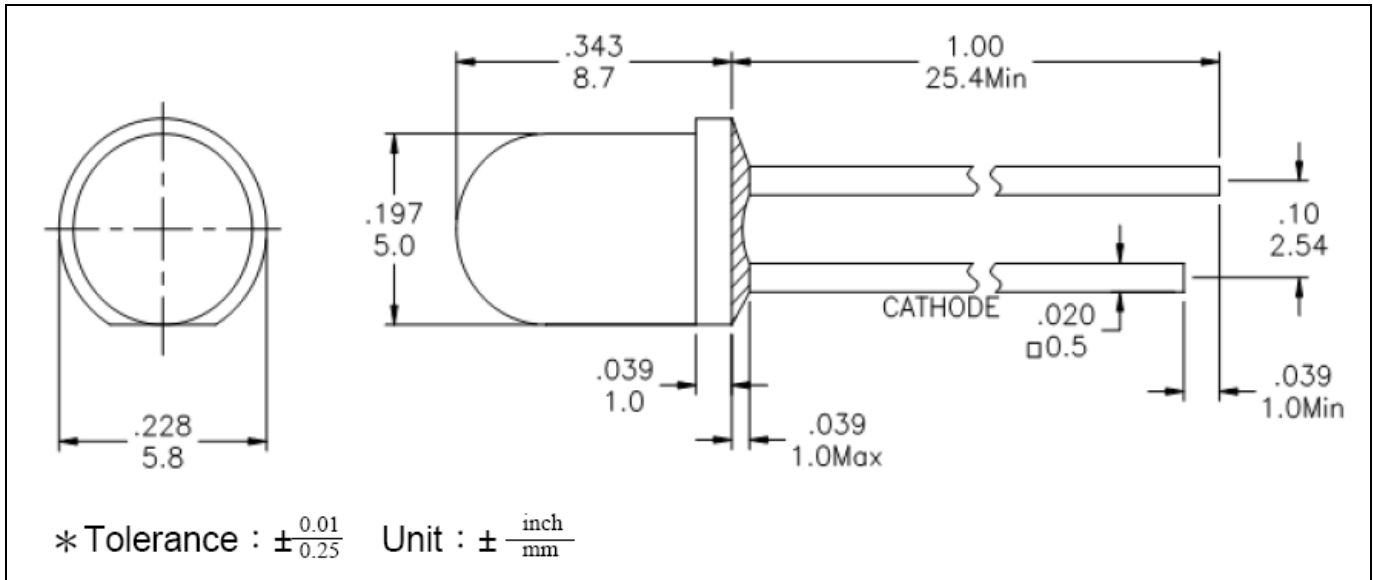
## Features:

- Low Power Consumption.
- High Luminous Output
- High Reliability and Solid Performance
- Optimal Optical/Mechanical Design
- RoHS Compliant

## Device Selection Guide:

Part No.	Chip		LED Lens
	Material	Emitted Color	
HV-8W15WTXCB-XXXX	InGaN	White	Water Transparent

## Package Outline Dimensions:



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## Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	GaP Material	Unit
Power Dissipation	P <sub>d</sub>	108	mW
Reverse Voltage	V <sub>r</sub>	5	V
Forward Current(DC)	I <sub>F</sub>	30	mA
Peak Forward Current*	I <sub>FP</sub>	100	mA
Operating Temperature Range	T <sub>opr</sub>	-40 to +80	°C
Storage Temperature Range	T <sub>stg</sub>	-40 to +100	°C
Lead Soldering Temp	T <sub>sol</sub>	Max. 260°C for 5 sec Max.(3mm from the epoxy body)	°C

\*Pulse width ≤ 0.1msec. duty ≤ 1/10

## Electrical and Optical Characteristic ( Ta= 25°C )

Parameter	Symbol	HV-8IR20WTXCTR-XXXX			Unit	Test Condition
		Min.	Typ.	Max.		
Forward voltage	V <sub>f</sub>	-	3.2	3.6	V	I <sub>f</sub> =20mA
Luminous intensity	I <sub>v</sub>	-	40000	-	mcd	I <sub>f</sub> =20mA
Chromaticity	X	-	0.31	-		I <sub>f</sub> =20mA
Coodination	Y	-	0.32	-		I <sub>f</sub> =20mA
Viewing angle	2θ 1/2	-	15	-	deg	I <sub>f</sub> =20mA
Reverse Current	I <sub>r</sub>	-	-	10	μA	V <sub>r</sub> =5V

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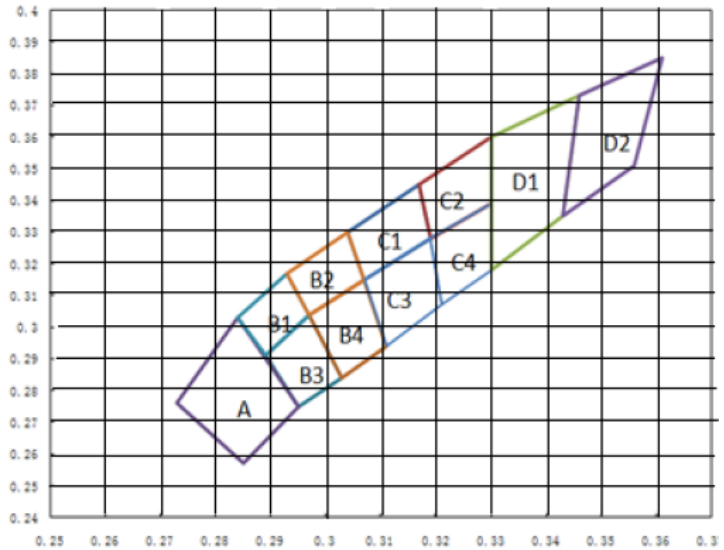
## Luminous Intensity Rank Limits (IF = 20mA )

unit:mcd

code	min.	max.
41	32100	41700
42	41700	54200
43	54200	70500

## Color Rank Limits (IF = 20mA )

A					
X	0.285	0.295	0.284	0.273	0.285
Y	0.257	0.275	0.303	0.276	0.257
B1					
X	0.289	0.297	0.293	0.284	0.289
Y	0.291	0.304	0.317	0.303	0.291
B2					
X	0.297	0.307	0.304	0.293	0.297
Y	0.304	0.315	0.33	0.317	0.304
B3					
X	0.295	0.303	0.297	0.289	0.295
Y	0.275	0.284	0.304	0.291	0.275
B4					
X	0.303	0.311	0.307	0.297	0.303
Y	0.284	0.294	0.315	0.304	0.284
C1					
X	0.307	0.319	0.317	0.304	0.307
Y	0.315	0.328	0.345	0.33	0.315
C2					
X	0.319	0.33	0.33	0.317	0.319
Y	0.328	0.339	0.36	0.345	0.328
C3					
X	0.311	0.321	0.319	0.307	0.311
Y	0.294	0.307	0.328	0.315	0.294
C4					
X	0.321	0.33	0.33	0.319	0.321
Y	0.307	0.318	0.339	0.328	0.307



D1					
X	0.33	0.343	0.346	0.33	0.33
Y	0.318	0.335	0.373	0.36	0.318
D2					
X	0.343	0.356	0.361	0.346	0.343
Y	0.335	0.351	0.385	0.373	0.335

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**Forward Voltage Rank Limits (IF = 20mA )**

unit : V

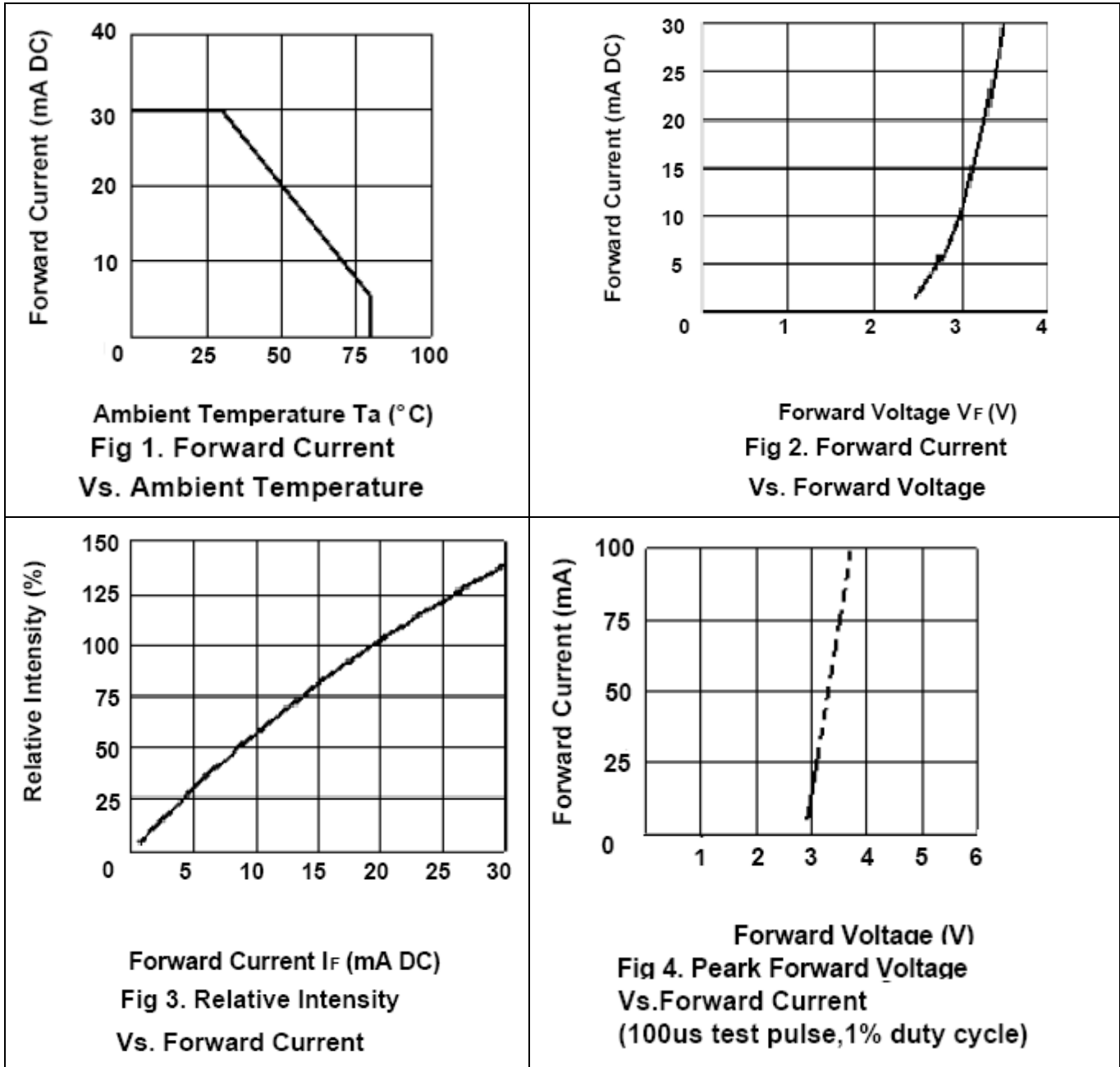
code	min.	max.
H	2.8	3.0
J	3.0	3.2
K	3.2	3.4
L	3.4	3.6

## Notes :

1. Tolerance of measurement of luminous intensity :±15%
2. Tolerance of measurement of Color Coordinates :±0.01
3. Tolerance of measurement of forward voltage :±0.05v
4. All data are measured by HARVATEK's test equipment.
5. The quantity-ratio of the ranks is decided by HARVATEK.
6. Please confirm with HARVATEK salesman, if your request different form standard specification.
7. One delivery will include several color rank, VF rank and Iv ranks of the products.

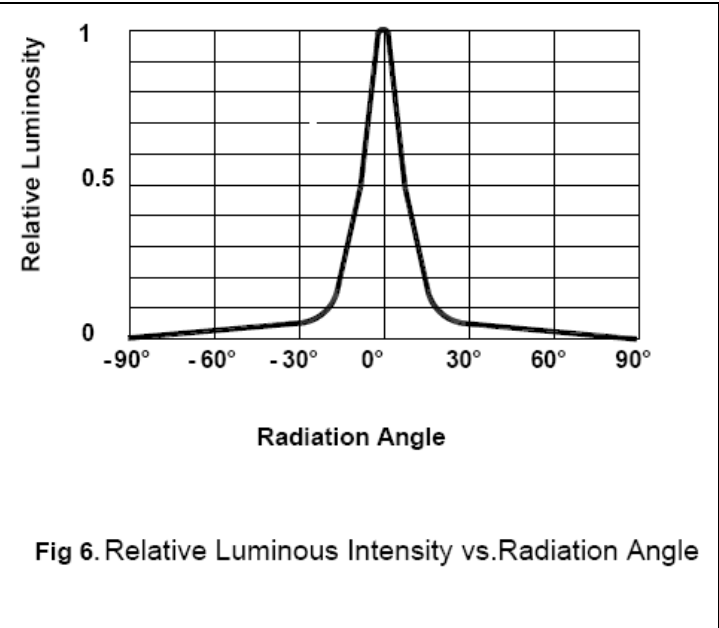
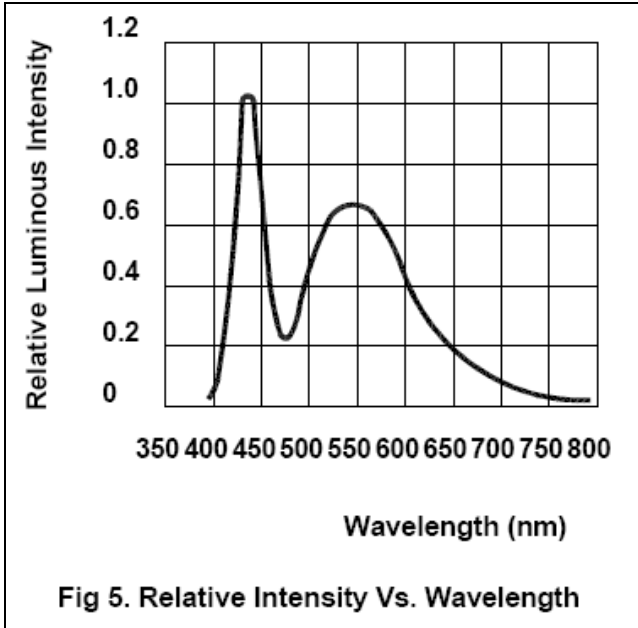
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## Typical Electrical / Optical Characteristic Curves ( @ 25 °C )



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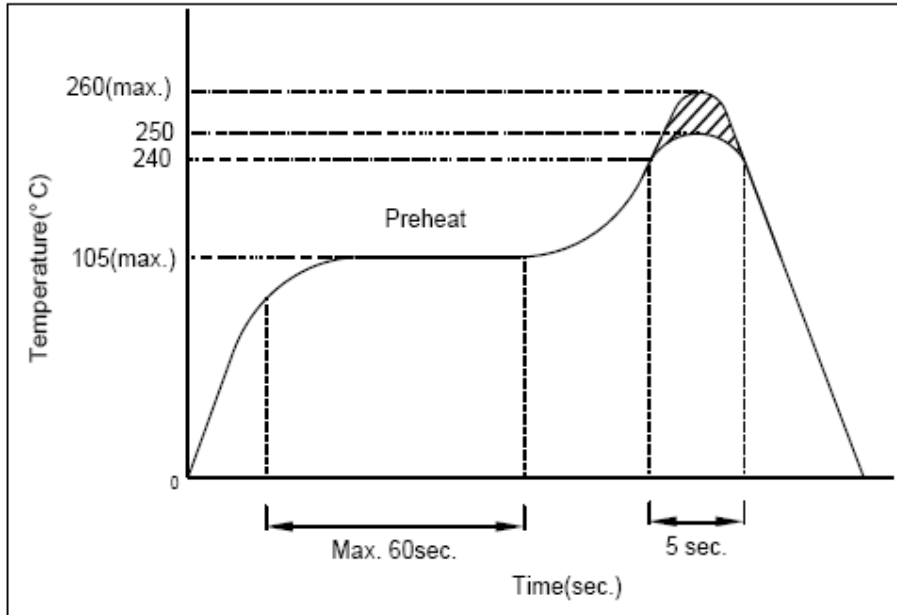
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## Precautions for use:

### 1. Recommended Soldering conditions

#### 1.1 Wave Soldering

Basic SPEC. is  $\cong 5\text{sec.}$  When  $260^\circ\text{C}$ . If temperature is higher, time should be shorter ( $+10^\circ\text{C} \rightarrow -1\text{sec.}$ ).



#### 1.2 Soldering Iron

Power dissipation of iron should be smaller than 15W, and temperature should be controllable, Surface temperature of iron tip should be under  $230^\circ\text{C}$ , soldering time  $\cong 3\text{sec.}$

### 2. Static Electricity

2-1. Static electricity or surge voltage damages LEDs.

It is recommended that a wrist band or an anti-electrostatic glove should be used when handling the LEDs.

2-2. All devices, equipment and machinery must be properly grounded. It is recommended that measures be taken against surge voltage to the equipment that mounts the LEDs.

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## Revision History

Revision	Page	Version No.	Revision Date
Initial Release		1.0	03-01-2013

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