Harvatek International 3.0mm Round LED Lamp
HV-7USD50RDXC

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LIFE SUPPORT POLICY

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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.

Compliance and Certification

ISO9002, QS9000 and ISO14001 Certified
RoHS Compliant

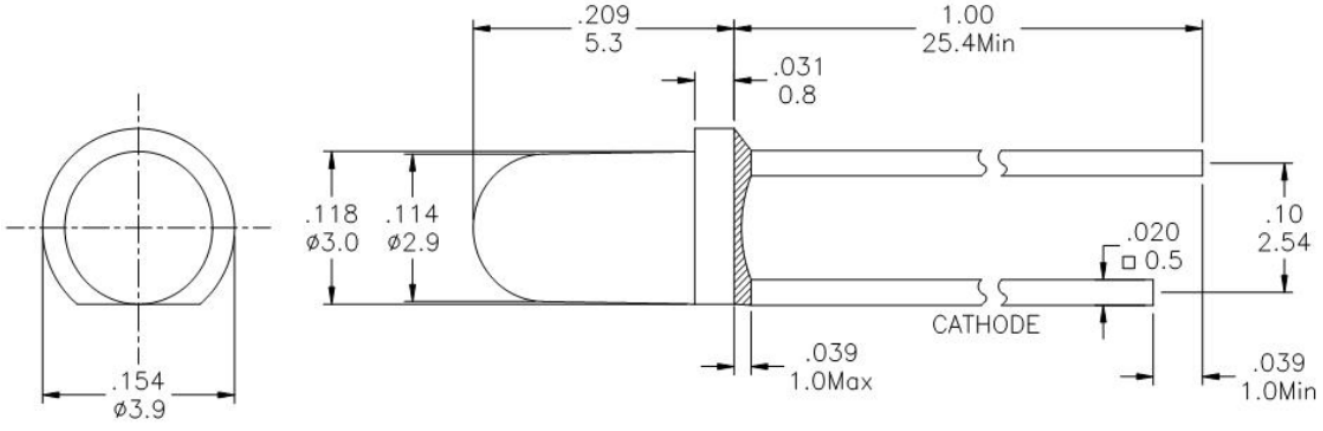
Orderable Information

H V - 7 U S D 5 0 R D X C

Series Name	Color Code	Remark
HV= Harvatek Round LED Lamp	7USD = 3.0mm Round LED Lamp,5.3mm Lens, 625nm AlInGaP Red chip. 50= Viewing angle 50 deg. RD= Red Diffused. XC=HARVATEK Part number code	

Features:

- Stable Color
- Popular 3.0mm through hole package, 5.3mm lens height.
- Red Diffused lens



Note: Tolerance：±0.25mm （same as ±0.01 inch）

Absolute Maximum Ratings at Ta=25℃

Parameter	Symbol	GaP Material	Unit
Power Dissipation	P_d	72	mW
Reverse Voltage	V_r	5	V
Forward Current(DC)	I_F	30	mA
Peak Forward Current*	I_{FP}	100	mA
Operating Temperature Range	T_{opr}	-40 to +80	℃
Storage Temperature Range	T_{stg}	-40 to +100	℃
Lead Soldering Temp	Tsol	Max. 260℃ for 5 sec Max.	℃

***Pulse width ＜＝0.1msec. duty ＜＝ 1/10**

Electrical and Optical Characteristic (@ 25 degree ℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	VF		2.0	2.4	V	IF=10mA
Dominant Wavelength	λD		625		nm	IF=10mA
Viewing Angle	2θ 1/2		50		deg	IF=20mA
Luminous Intensity	IV	140	320		mcd	IF=20mA
		77	170			IF=10mA
Reverse Current	IR			100	μ A	VR=5V

Luminous Intensity Rank Limits (IF = 10mA)

Part No. / Code			
	min.	max.	
19	77	130	Unit : mcd
20	130	170	
21	170	220	
22	220	290	

Dominant Wavelength Rank Limits (IF = 10mA)

Part No. / Code			
	min.	max.	
A6	616	620	Unit : nm
R1	620	625	
R2	625	630	

Forward Voltage Rank Limits (IF = 10mA)

Part No. / Code			
	min.	max.	
B	1.6	1.8	Unit : V
C	1.8	2.0	
D	2.0	2.2	
E	2.2	2.4	

Notes:

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

Typical Electrical/Optical Characteristic Curves

Fig 1. Forward Current vs. Forward Voltage

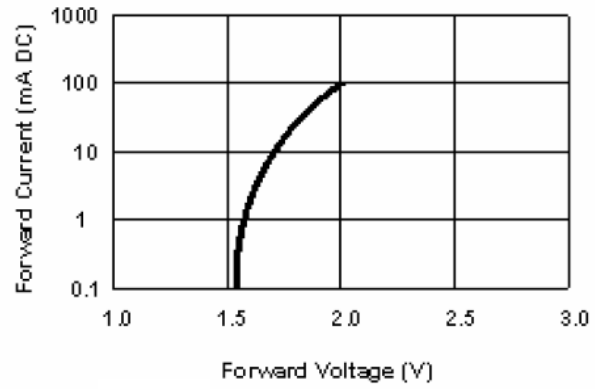


Fig 2. Relative Intensity vs. Forward Current

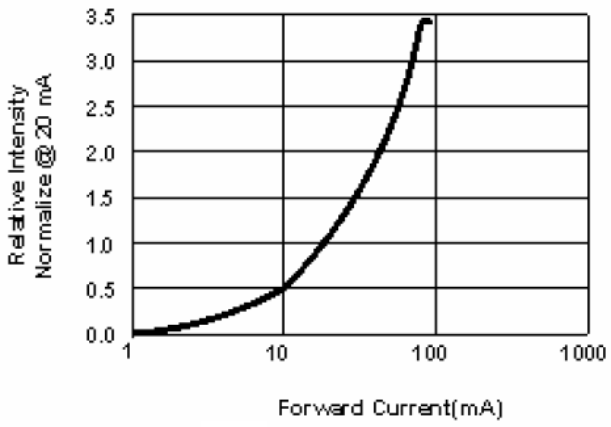


Fig 3. Forward Voltage vs. Temperature

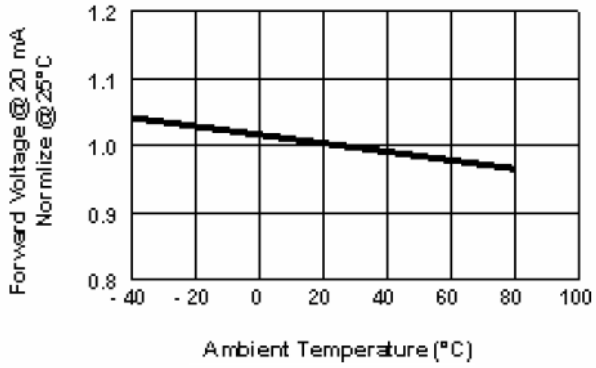


Fig 4. Relative Intensity vs.Temperature

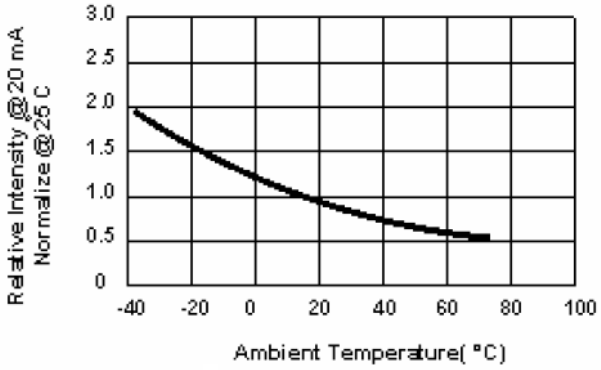


Fig 5. Relative Intensity Vs. Wavelength

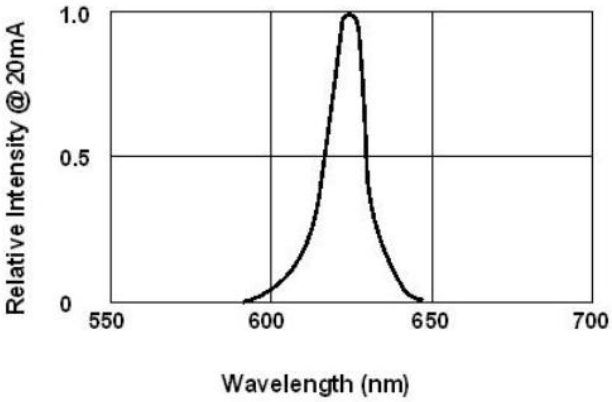
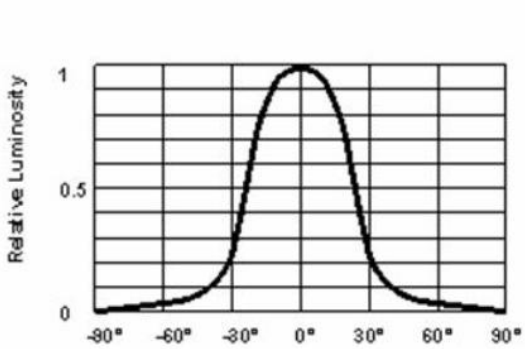


Fig 6. Radiation Diagram

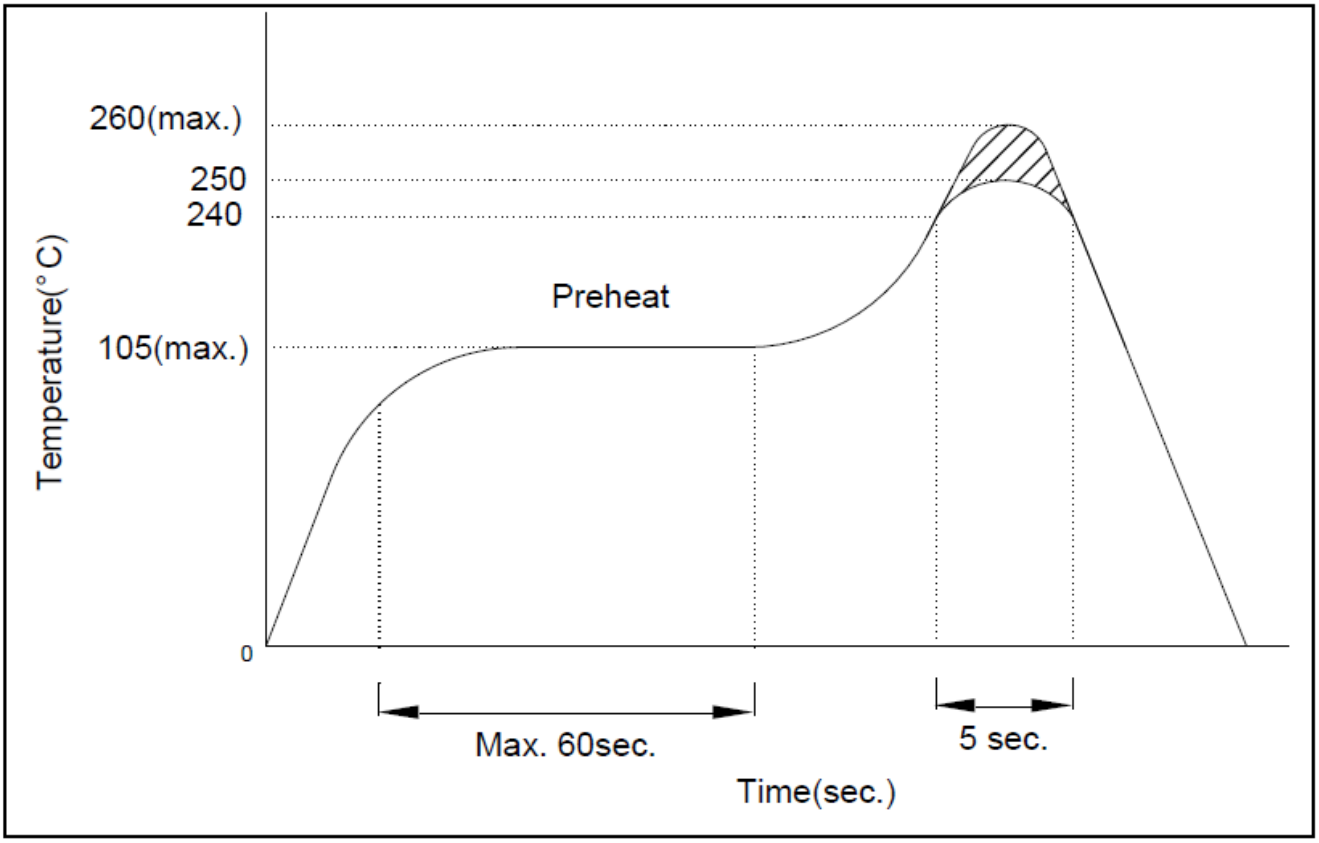


Precautions For Use

1. Recommended Soldering conditions

1.1 Wave Soldering

Basic SPEC. is ≦5sec. When 260℃. If temperature is higher, time should be shorter (+10℃→ -1sec.).



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℃,soldering time ≦3sec.

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**.**

Notice: The specifications are subject to change without notice. Please contact us for updated information

Revision History

Revision	Page	Version No.	Revision Date
Initial Release		1.0	11-24-2015