Inolux 3mm Super Bright Through Hole Lamp
HV-3XX40/80 Series

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LIFE SUPPORT POLICY

INOLUX'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 INOLUX or INOLUX 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.

Orderable Information

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Series Name	Color Code	Customer Code
HV= Inolux Through Hole Lamp	**3UR80 =** 624nm Red, 3mm clear lens **3UBG40 =** 505nm Bluish Green, 3mm clear lens **3UTG40 =** 525nm True Green, 3mm clear lens **3UY80 =** 590nm Yellow, 3mm clear lens **3UA80 =** 605nm Amber, 3mm clear lens **3UB40 =** 470nm Blue, 3mm clear lens **3W40 =** White, 3mm clear lens	**YYYY =** Customer code

Features:

- Stable Color
- Popular 3mm through hole package, 4.15mm lens height.
- Water clear lens
- InGaN and AlInGaP technology
- Solid state reliability
- Special packaging available upon request
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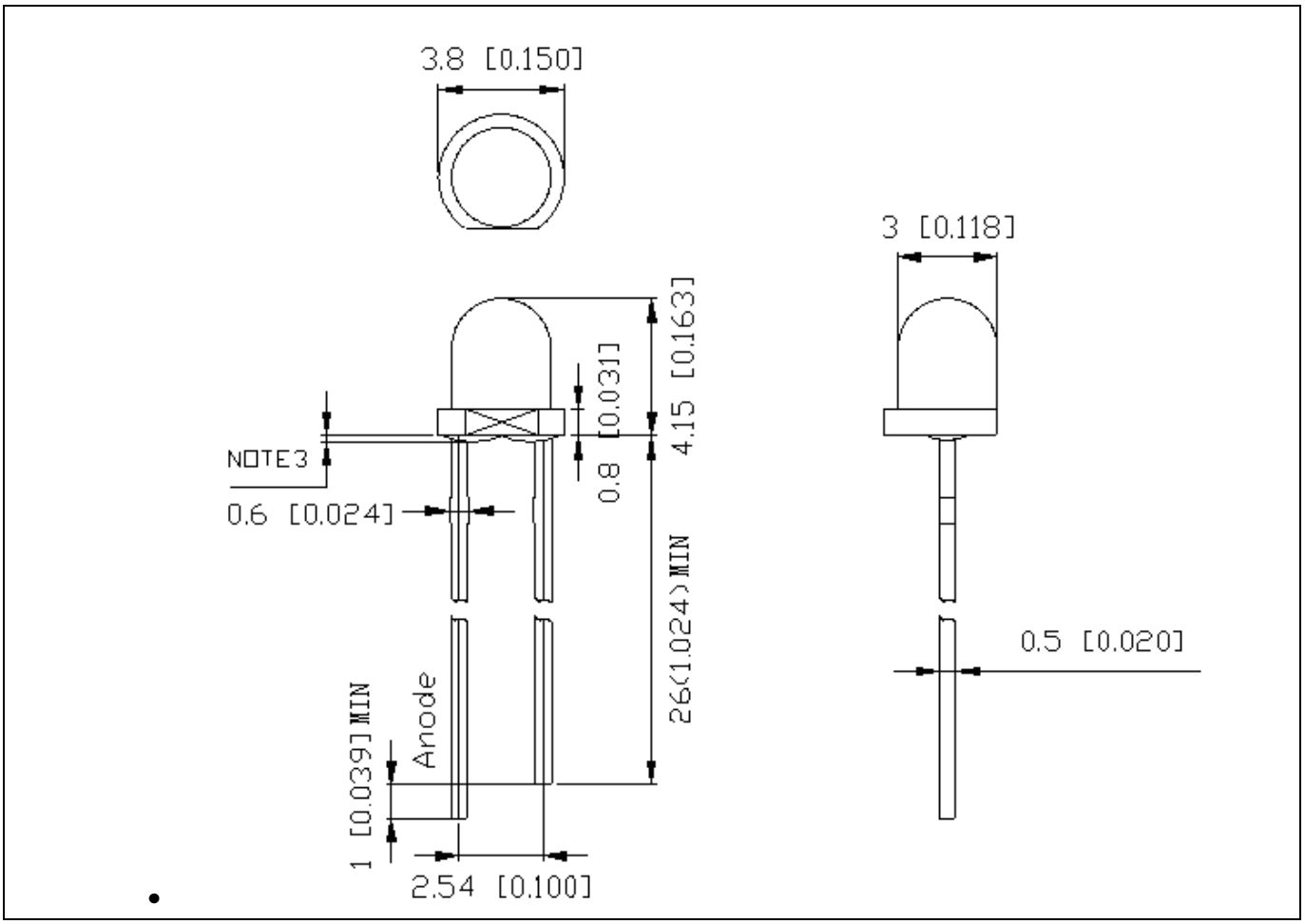


-All Dimensions are in millimeters

-Tolerance = +/- 0.25mm

Absolute Maximum Ratings at Ta=25C

Parameter	Symbol	AlInGaP Material	InGaN Material	Unit
Power Dissipation	P_d	62	90	mW
Reverse Voltage	V_r	5	5	V
Forward Current	I_F	25	25	mA
Reverse Current	I_r	10	10	μA
Peak Current (1/10 Duty Cycle, 0.1ms pulse width)	I_F (Peak)	100	100	mA
Operating Temperature Range	T_{opr}	-40 to +85		° C
Storage Temperature Range	T_{stg}	-40 to +100		° C
Lead Soldering Temp	T_{sol}	260		° C

Electrical and Optical Characteristic (@ 25 degree C)

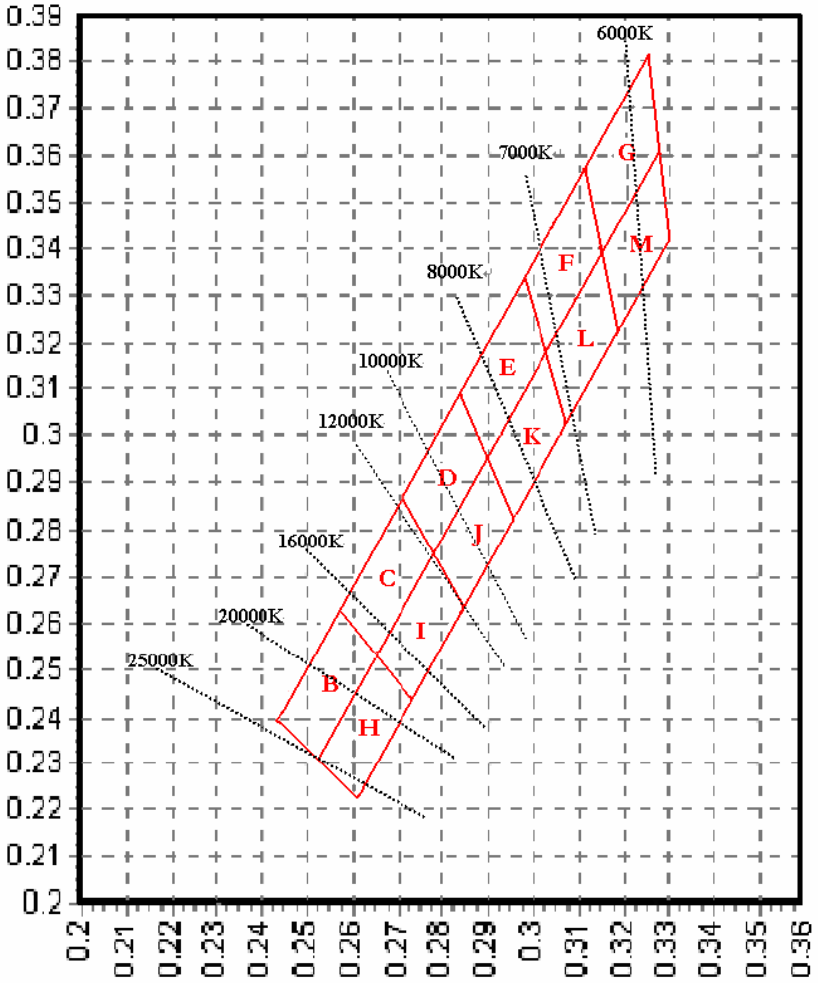
Parameter	3UR80	3UBG40	3UTG40	3UY80	Test Condition
Luminous Intensity:					
Min (mcd)	160	600	780	210	If=20mA
Typ (mcd)	380	1800	1800	400	If=20mA
Forward voltage (Vf)					
Typ	2.0	3.3	3.3	2.0	If=20mA
Max	2.4	3.8	3.8	2.4	If=20mA
Dominant Wavelength (nm)	624	505	525	590	If=20mA
Viewing angle	80	40	40	80	If=20mA

- Brightness tolerance = +/- 10%

Parameter	3UA80	3UB40	3W40	Test Condition
Luminous Intensity:				
Min (mcd)	90	460	2700	If=20mA
Typ (mcd)	220	1300	3800	If=20mA
Forward voltage (Vf)				
Typ	2.0	3.3	3.3	If=20mA
Max	2.4	3.8	3.8	If=20mA
Dominant Wavelength (nm)	605	470	X=0.30 Y=0.31	If=20mA
Viewing angle	80	40	40	If=20mA

- Brightness tolerance = +/- 10%

Chromaticity Diagram

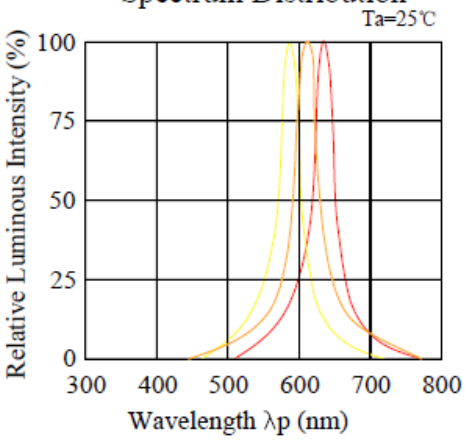


Bin Code	X	Y	Color (K)
B	0.255	0.247	20000
C	0.268	0.27	16000
D	0.281	0.293	10000
E	0.294	0.315	8000
F	0.307	0.339	7000
G	0.32	0.361	6000

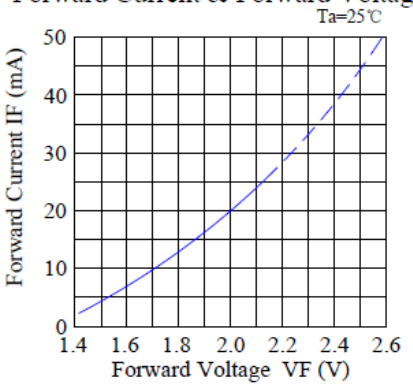
Bin Code	X	Y	Color (K)
H	0.263	0.237	20000
I	0.275	0.259	16000
J	0.288	0.279	10000
K	0.299	0.3	8000
L	0.311	0.321	7000
M	0.323	0.341	6000

Characteristic Curves for UR, UA and UY

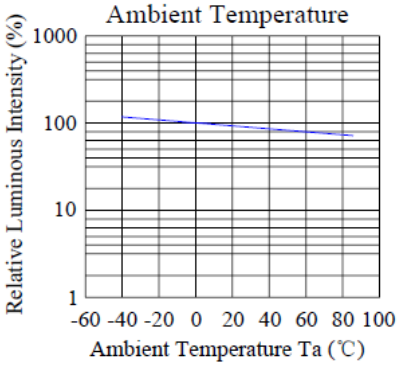
Spectrum Distribution



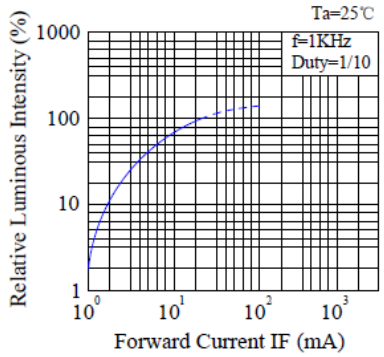
Forward Current & Forward Voltage



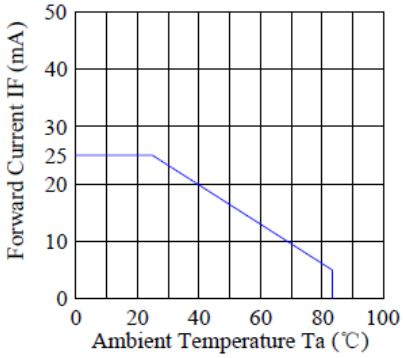
Luminous Intensity & Ambient Temperature



Luminous Intensity & Forward Current

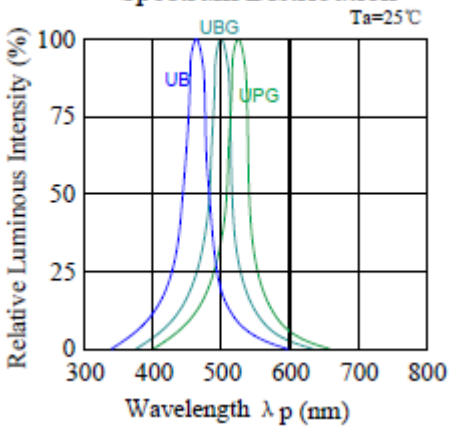


Forward Current Derating Curve

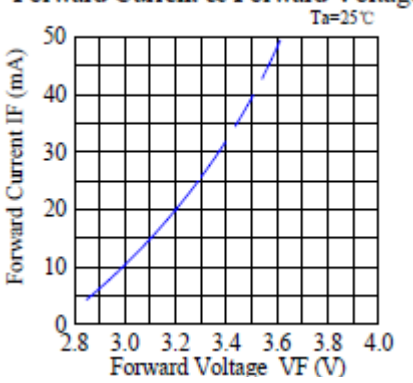


Characteristic Curves for UB, UBG and UPG

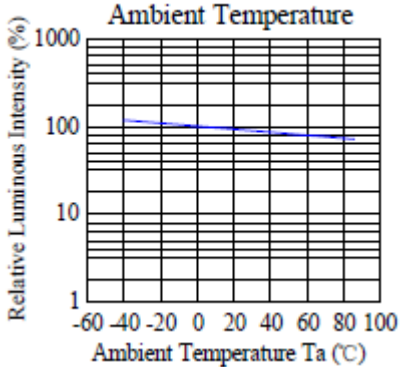
Spectrum Distribution



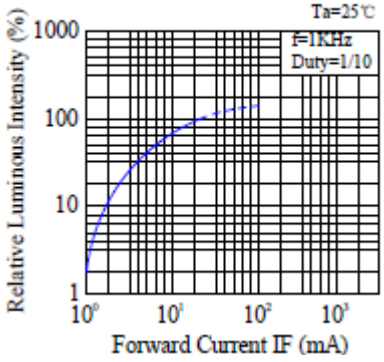
Forward Current & Forward Voltage



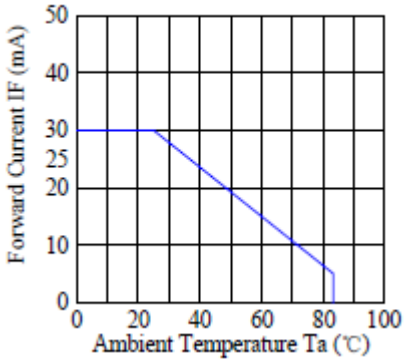
Luminous Intensity & Ambient Temperature



Luminous Intensity & Forward Current

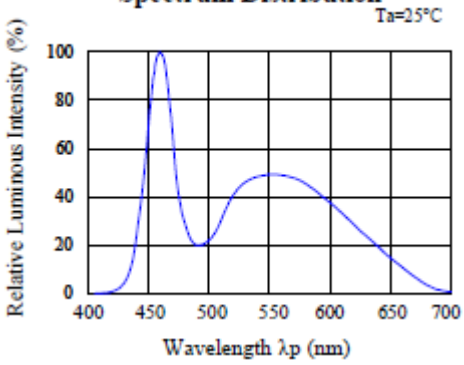


Forward Current Derating Curve

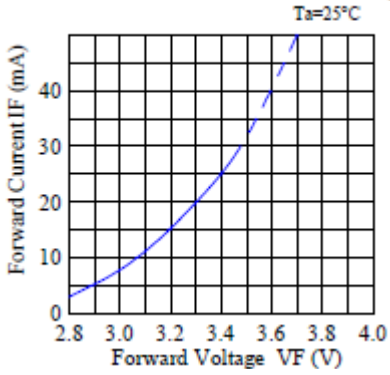


Characteristic Curves for White

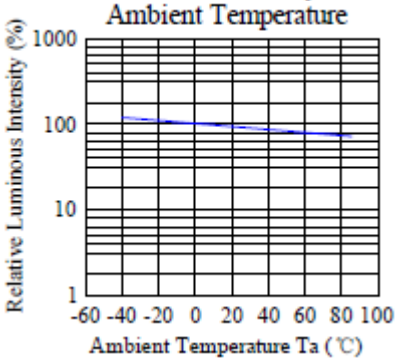
Spectrum Distribution



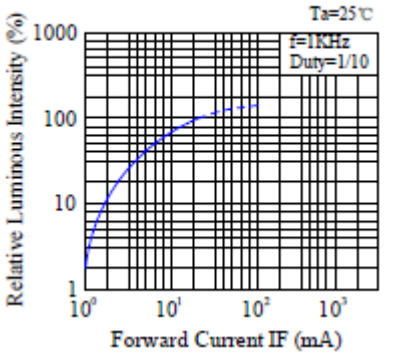
Forward Current & Forward Voltage



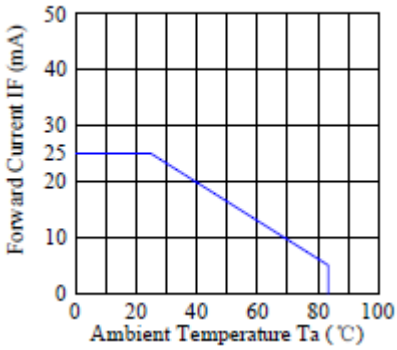
Luminous Intensity & Ambient Temperature



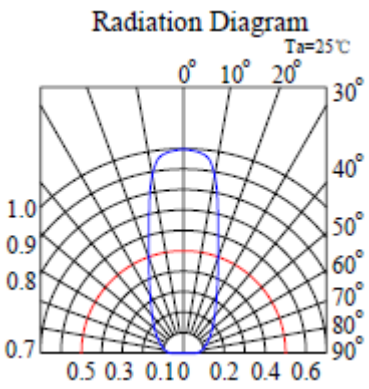
Luminous Intensity & Forward Current



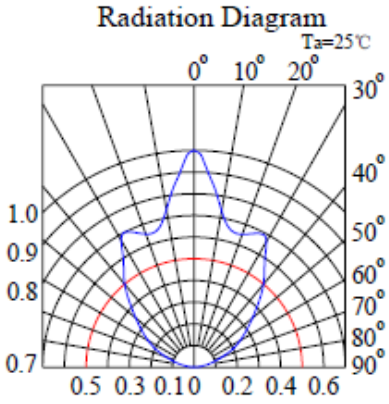
Forward Current Derating Curve



Radiation Diagram



VA=40°



VA=80°

Revision History

Changes since last revision	Page	Version No.	Revision Date
Initial release for 3mm T-1, 4.15mm Lens Lamp		1.0	06-26-2013