



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Part Number: WP42WUM/GYW

Green
Yellow

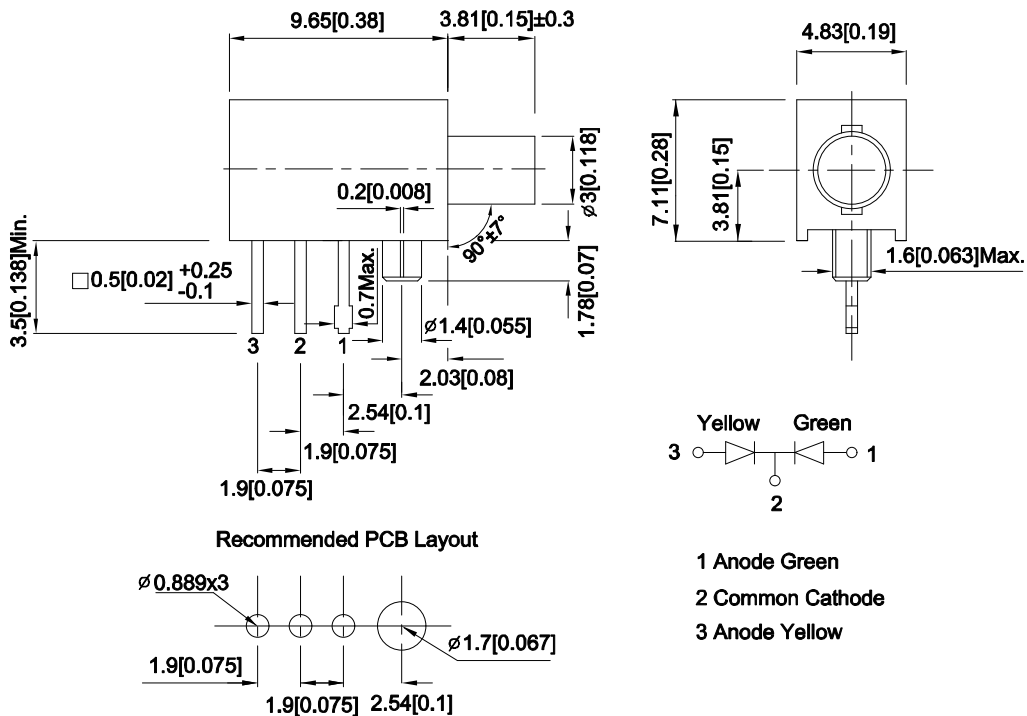
Features

- Pre-trimmed leads for pc mounting.
- Black case enhances contrast ratio.
- Wide viewing angle.
- High reliability-life measured in years.
- Housing UL rating:94V-0.
- Housing material: type 66 nylon.
- RoHS compliant.

Descriptions

- The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.
- The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.



Selection Guide

Part No.	Emitting Color (Material)	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
WP42WUM/GYW	Green (GaP)	White Diffused	4	10	100°
	Yellow (GaAsP/GaP)		2	6	

Notes:

1. $\theta 1 / 2$ is the angle from optical centerline where the luminous intensity is 1 / 2 of the optical peak value.
2. Luminous intensity / luminous Flux: + / -15%.
3. Luminous intensity value is traceable to CIE127-2007 standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Emitting Color	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Green Yellow	565 590		nm	I _F =20mA
λ_D [1]	Dominant Wavelength	Green Yellow	568 588		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Green Yellow	30 35		nm	I _F =20mA
C	Capacitance	Green Yellow	15 20		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Green Yellow	2.2 2.1	2.5 2.5	V	I _F =20mA
I _R	Reverse Current	Green Yellow		10 10	uA	V _R = 5V

Notes:

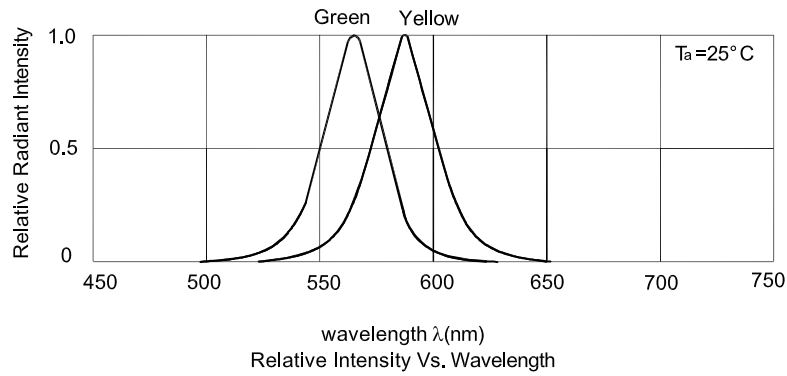
1. Wavelength: + / -1nm.
2. Forward Voltage: + / -0.1V.
3. Wavelength value is traceable to CIE127-2007 standards.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

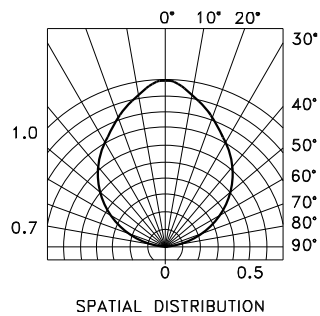
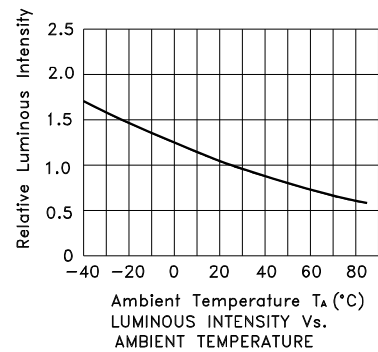
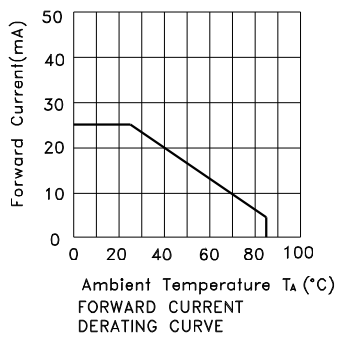
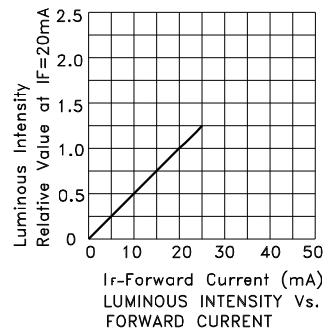
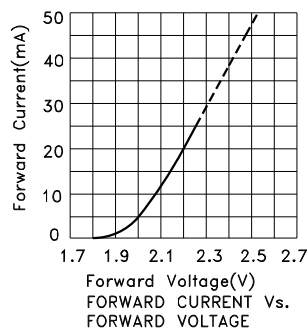
Parameter	Green	Yellow	Units
Power dissipation	62.5	75	mW
DC Forward Current	25	30	mA
Peak Forward Current [1]	140	140	mA
Reverse Voltage	5		V
Operating / Storage Temperature	-40°C To +85°C		
Lead Solder Temperature [2]	260°C For 3 Seconds		
Lead Solder Temperature [3]	260°C For 5 Seconds		

Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.
3. 5mm below package base.
4. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

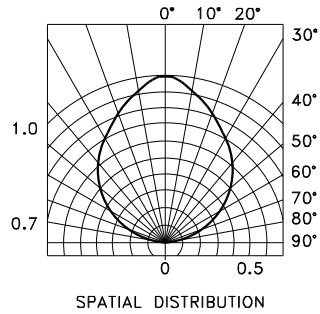
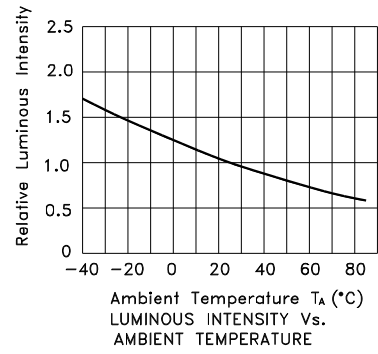
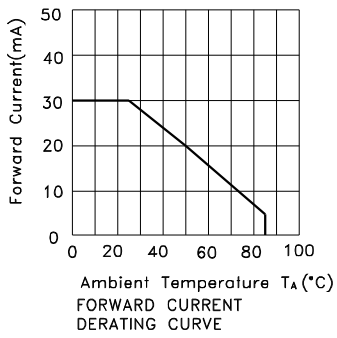
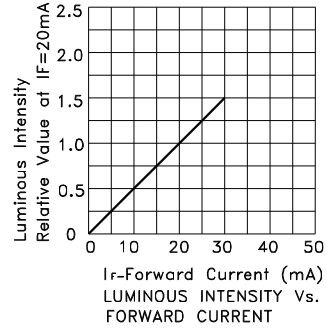
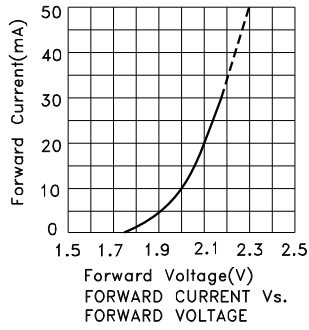


WP42WUM/GYW Green



Kingbright

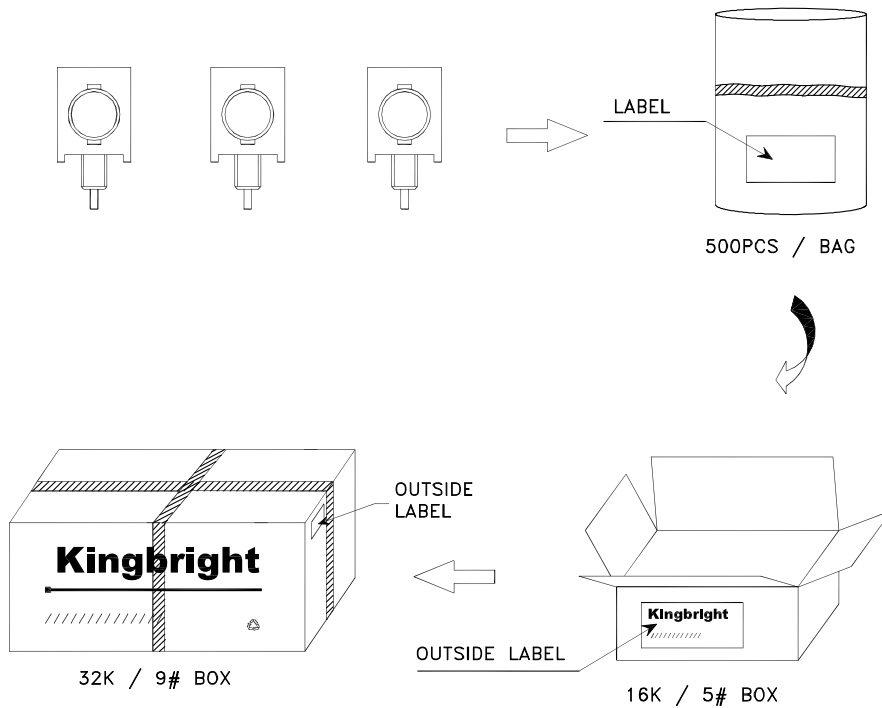
Yellow




Kingbright

PACKING & LABEL SPECIFICATIONS

WP42WUM/GYW



<h1>Kingbright</h1>	
P/NO: WP42WUMxxx	
QTY: 500 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	

Terms and conditions for the usage of this document

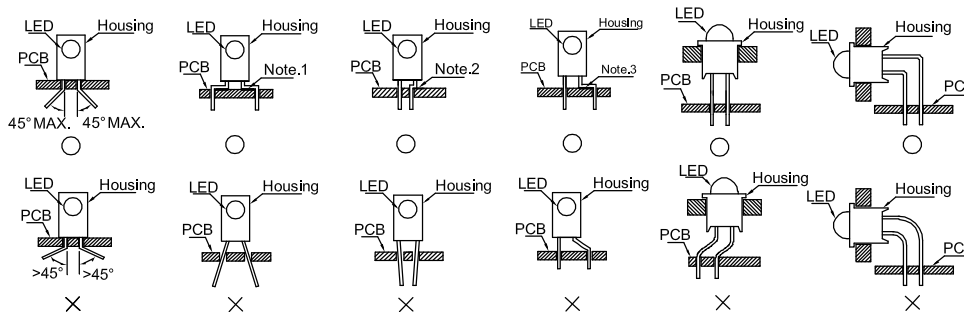
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PRECAUTIONS

1. Storage conditions:

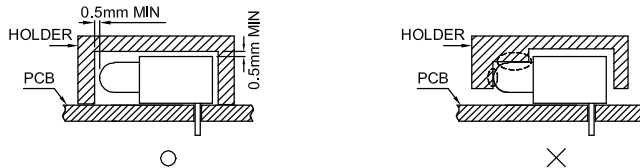
- a. A continued exposure to the condensing moisture environment and keep the product away from rapid transitions in ambient temperature.
- b. LEDs should be stored with temperature $\leq 30^{\circ}\text{C}$ and relative humidity $< 60\%$.
- c. Product in the original sealed package is recommended to be assembled within 72 hours of opening. Product in opened package for more than a week should be baked for 30 (+10/-0) hours at $85 \sim 100^{\circ}\text{C}$.

2. The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement. Lead-forming may be required to insure the lead pitch matches the hole pitch. Refer to the figure below for proper lead forming procedures.



Note 1-3: Do not route PCB trace in the contact area between the leadframe and the PCB to prevent short-circuits.

3. During soldering, component covers and holders should leave clearance to avoid placing damaging stress on the LED during soldering.

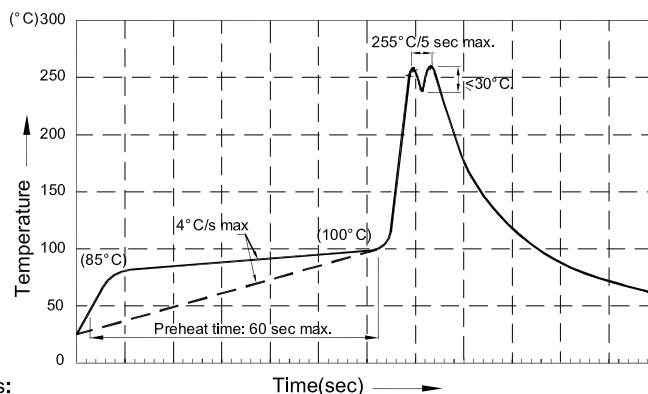


4. The tip of the soldering iron should never touch the lens epoxy.

5. Through-hole LEDs are incompatible with reflow soldering.

6. If the LED will undergo multiple soldering passes or face other processes where the part may be subjected to intense heat, please check with Kingbright for compatibility.

7. Recommended Wave Soldering Profiles:



Notes:

1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
2. Peak wave soldering temperature between $245^{\circ}\text{C} \sim 255^{\circ}\text{C}$ for 3 sec (5 sec max).
3. Do not apply stress to the epoxy resin while the temperature is above 85°C .
4. Fixtures should not incur stress on the component when mounting and during soldering process.
5. SAC 305 solder alloy is recommended.
6. No more than one wave soldering pass.