

3.4mm RIGHT ANGLE LED INDICATOR

Part Number: L-1387QMP/1SURKCGKW

Hyper Red Green

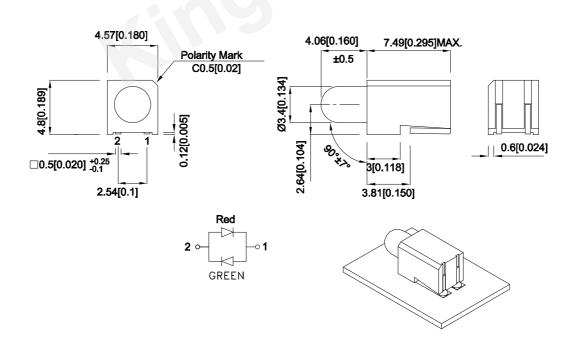
Features

- Surface mount type.
- Black case enhances contrast ratio.
- Wide viewing angle.
- High reliability life measured in years.
- Package:1000pcs / reel.
- Moisture sensitivity level : level 3.
- Housing UL rating:94V-0.
- Housing material: PPA.
- · High temperature resistant housing.
- High glass transition temperature epoxy.
- RoHS compliant.

Descriptions

- The Hyper Red source color devices are made with Al GaInP on GaAs substrate Light Emitting Diode.
- The Green source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.

Package Dimensions



Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
- 3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

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 CHECKED: Allen Liu
 DRAWN: F.T.Liu
 ERP: 1102006909

Selection Guide

Part No.	Emitting Color (Material)	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
	-		Min.	Тур.	201/2
L-1387QMP/1SURKCGKW	Hyper Red (AlGaInP)	White Diffused	180	400	- 60°
			60*	160*	
	Green (AlGaInP)		50	120	
			50*	120*	

- Notes:
 1. 01/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
 2. Luminous intensity/ luminous Flux: +/-15%.

 * Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Emitting Color	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red Green	645 574		nm	Ir=20mA
λD [1]	Dominant Wavelength	Hyper Red Green	630 570		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red Green	28 20		nm	IF=20mA
С	Capacitance	Hyper Red Green	35 15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Hyper Red Green	1.95 2.1	2.5 2.5	V	Ir=20mA

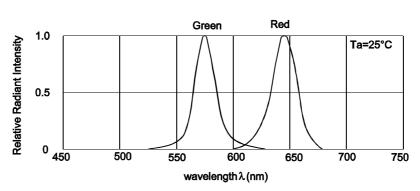
- 1. Wavelength: +/-1nm.
- 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
- Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

Parameter	Hyper Red	Green	Units		
Power dissipation	75	75	mW		
DC Forward Current	30	30	mA		
Peak Forward Current [1]	185	150	mA		
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				

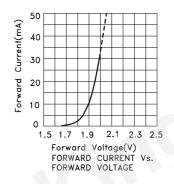
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
 2. 2mm below package base.
- 3. 5mm below package base.

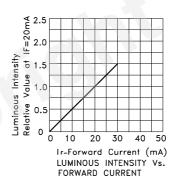
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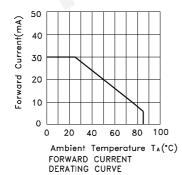


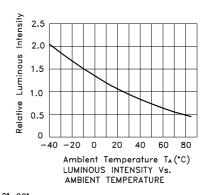
Relative Intensity Vs. Wavelength

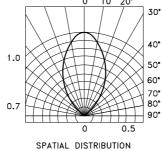
L-1387QMP/1SURKCGKW Hyper Red









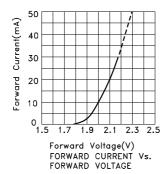


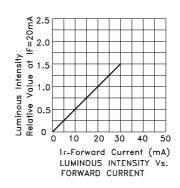
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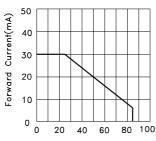
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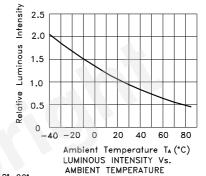
Green

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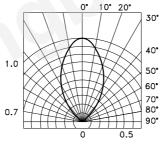












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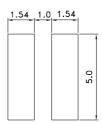
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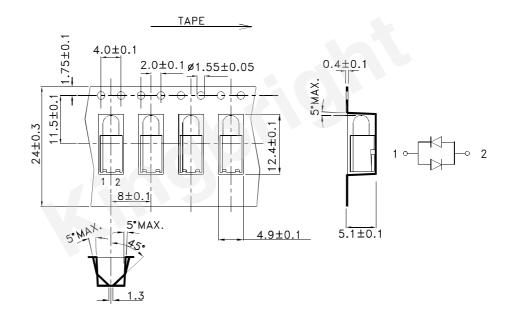
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Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



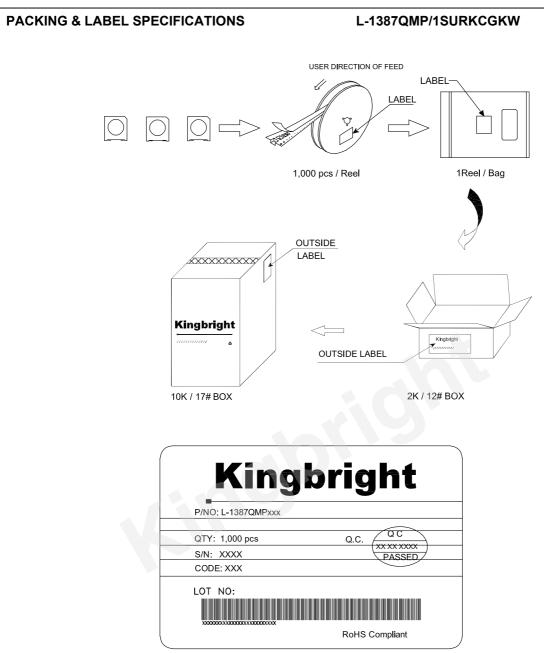
Tape Dimensions (Units: mm)



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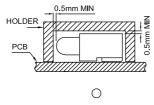
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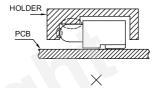
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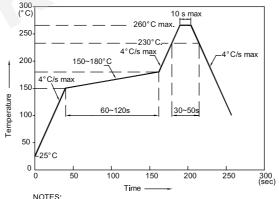
PRECAUTIONS

- 1.A moisture barrier bag (MBB) containing LEDs shall be kept in an environment with temperature below 40°C and humidity below 90% RH.
- A MBB shall be kept sealed until the LEDs contained in that bag are to be used immediately. Storge in an environment with temperature 5~30°C and humidity below 60% RH.
- 2.After a MBB has been opened, all LEDs contained in that bag shall complete soldering process within according to the conditions listed on the Kingbright MBB.
- 3.If the 10% spot of a humidity indicator card (HIC) indicates wet, LEDs shall be baked according to the conditions listed on the Kingbright MBB.
- 4.During soldering, component covers and holders should leave clearance to avoid placing damaging stress on the LED during soldering.





- 5. The tip of the soldering iron should never touch the lens epoxy.
- 6.After soldering, allow at least three minutes for the component to cool down to room temperature before further operations.
- 7.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.
- 8.Recommended Reflow Soldering Profiles For SMD Housing LEDs



- 1.We recommend the reflow temperature 245°C(±5°C). The maximum soldering temperature should be limited to 260°C.
- 2.Don't cause stress to the epoxy resin while it is exposed
- to high temperature.

 3.Recommended Solder: Sn/Cu/Ag.
- 4 No more than once.

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