Kingbright

3.4mm SURFACE MOUNT LED

P/N: L-1387QMP/1GYW GREEN / YELLOW

Features

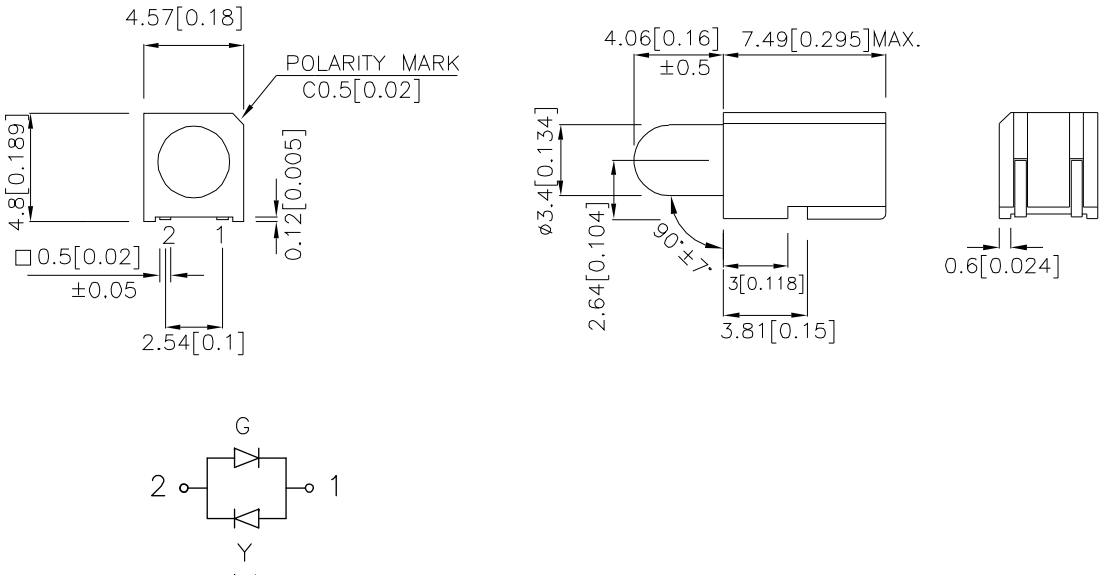
- SURFACE MOUNT TYPE.
- I.C. COMPATIBLE.
- BLACK CASE ENHANCES CONTRAST.
- WIDE VIEWING ANGLE.
- HIGH RELIABILITY LIFE MEASURED IN YEARS.
- PACKAGE: 1000PCS / REEL.
- HOUSING MATERIAL: PPA
- HIGH TEMPERATURE RESISTANT HOUSING.
- UL RATING : 94V-0.
- RoHS COMPLIANT.

Description

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.Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	2 θ 1/2
L-1387QMP/1GYW	GREEN (GaP)	WHITE DIFFUSED	7	20	60°
	YELLOW (GaAsP/GaP)		4	10	

Note:
1.θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

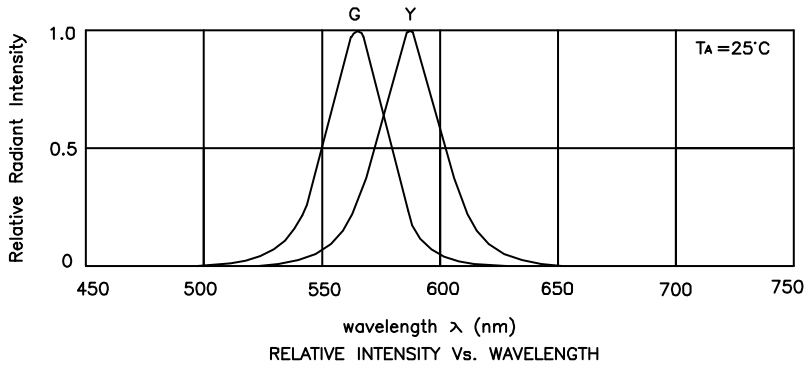
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green Yellow	565 590		nm	I_F=20mA
λD	Dominant Wavelength	Green Yellow	568 588		nm	I_F=20mA
Δλ1/2	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	Forward Voltage	Green Yellow	2.2 2.1	2.5 2.5	V	I_F=20mA

Absolute Maximum Ratings at T_A=25°C

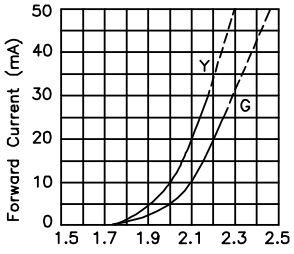
Parameter	Green	Yellow	Units
Power dissipation	105	105	mW
DC Forward Current	25	30	mA
Peak Forward Current [1]	140	140	mA
Operating / storage Temperature	-40°C To +85°C		

Note:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

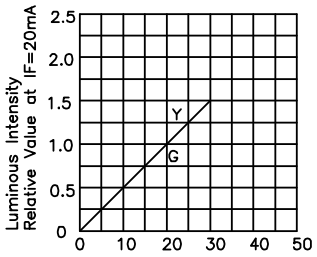


RELATIVE INTENSITY Vs. WAVELENGTH

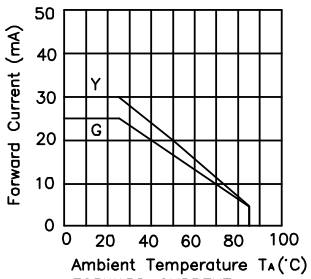
Green / Yellow **L-1387QMP/1GYW**



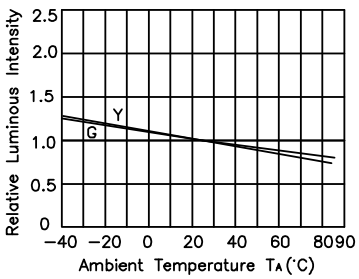
FORWARD CURRENT Vs.
FORWARD VOLTAGE



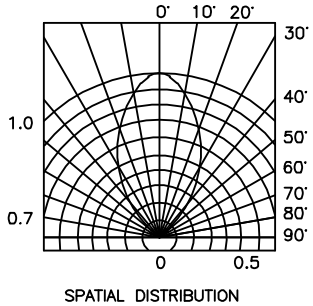
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



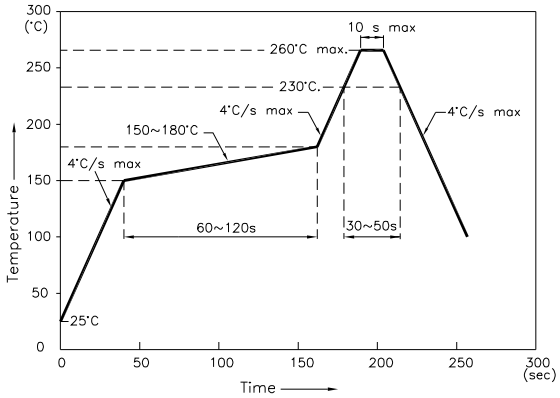
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

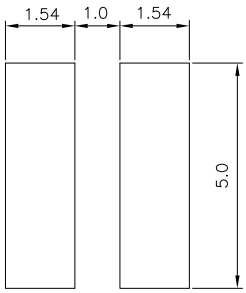
L-1387QMP/1GYW

Reflow Soldering Profile For Lead-free SMT Process.

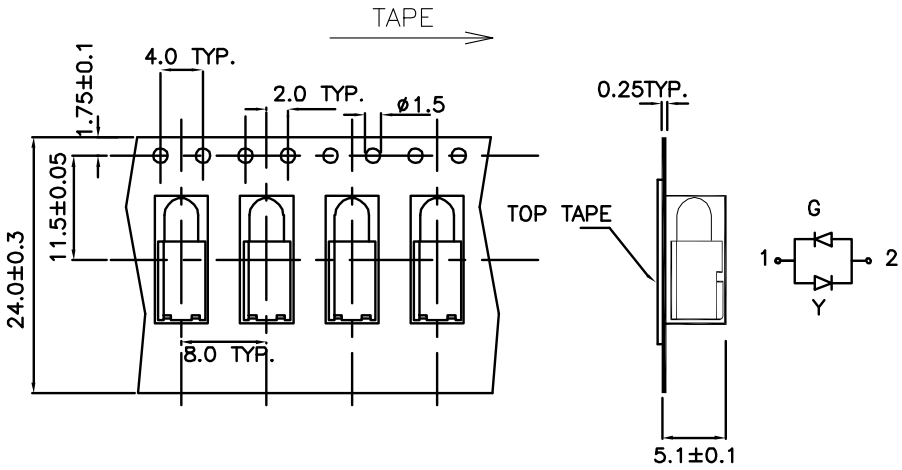


NOTES:
1. We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

Recommended Soldering Pattern (Units : mm)



Tape Specifications (Units : mm)



Remarks:

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity/ luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous intensity/ Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.