

PRELIMINARY SPEC

Part Number: KPHBM-2012CGKSYKC

GREEN

SUPER BRIGHT YELLOW

Features

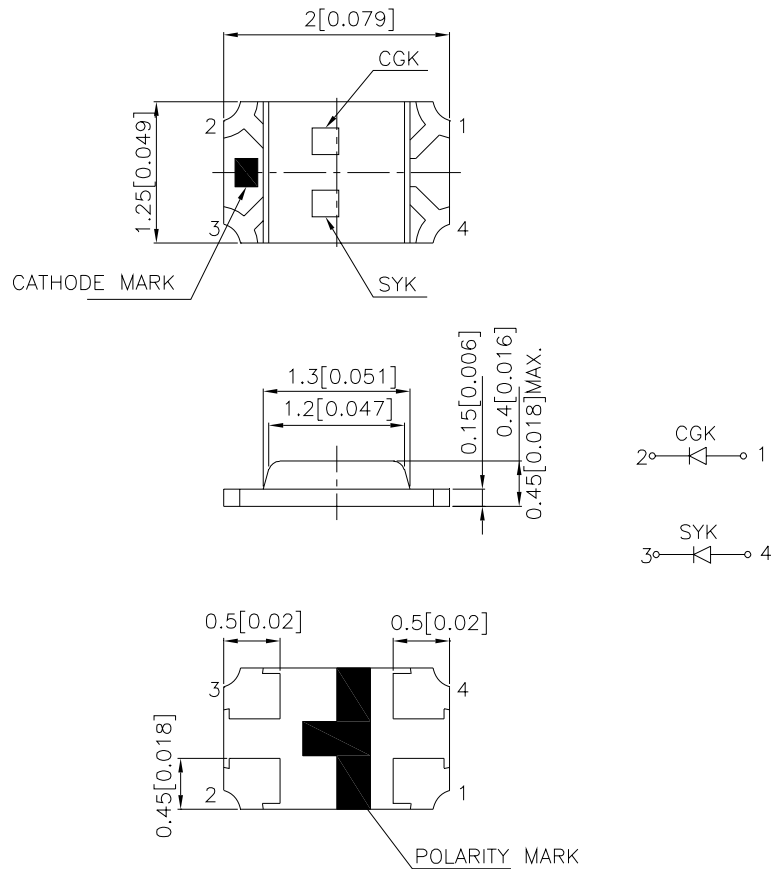
- 2.0mmx1.25mm SMT LED, 0.45mm MAX. THICKNESS.
- BI -COLOR, LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

Description

The Green source color devices are made with InGaAlP on GaAs substrate Light Emitting Diode.

The Super Bright Yellow source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.1(0.004)$ unless otherwise noted.
3. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
KPHBM-2012CGKSYKC	GREEN (InGaAIP)	WATER CLEAR	36	80	120°
	SUPER BRIGHT YELLOW (InGaAIP)		50	150	

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous Intensity / Luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Green Super Bright Yellow	574 590		nm	IF=20mA
λ_D [1]	Dominant Wavelength	Green Super Bright Yellow	570 590		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Green Super Bright Yellow	20 20		nm	IF=20mA
C	Capacitance	Green Super Bright Yellow	15 20		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green Super Bright Yellow	2.1 2.0	2.5 2.5	V	IF=20mA
IR	Reverse Current	Green Super Bright Yellow		10 10	uA	VR= 5V

Notes:

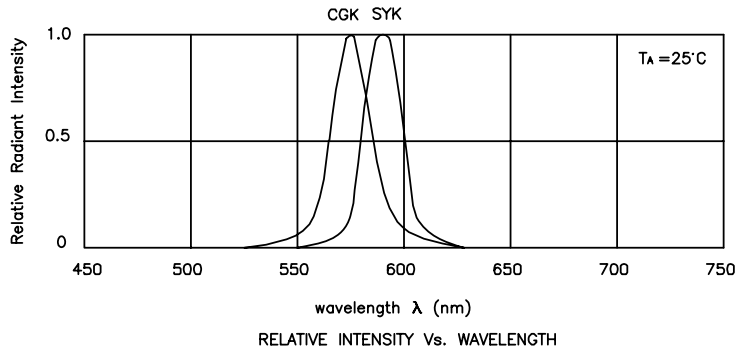
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

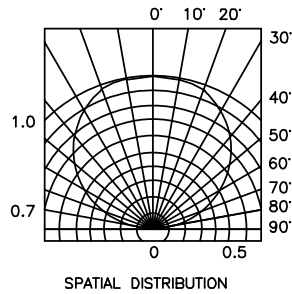
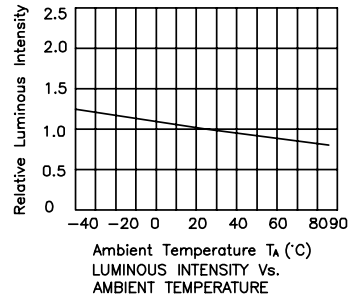
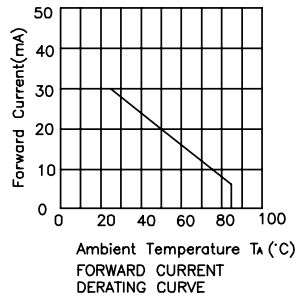
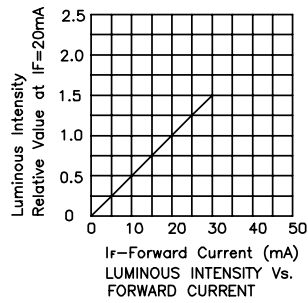
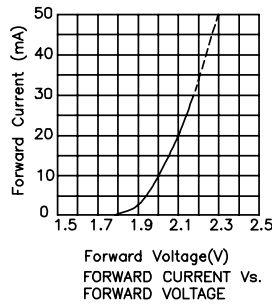
Parameter	Green	Super Bright Yellow	Units
Power dissipation	75	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	150	175	mA
Reverse Voltage	5		V
Operating / Storage Temperature	-40°C To +85°C		

Note:

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

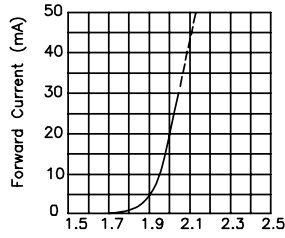


KPHBM-2012CGKSYKC
Green

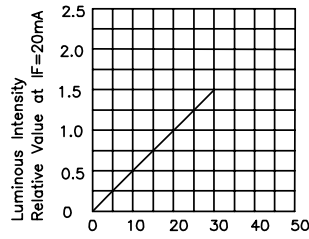


Kingbright

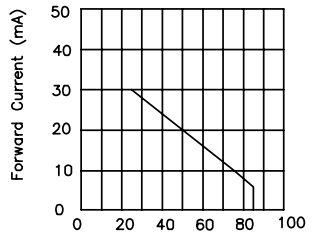
Super Bright Yellow



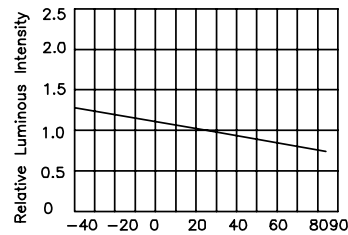
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



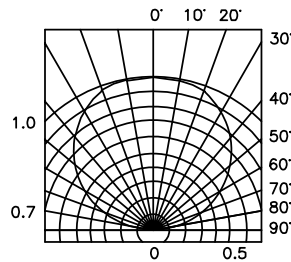
I_F -Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



Ambient Temperature T_A (°C)
FORWARD CURRENT
DERATING CURVE



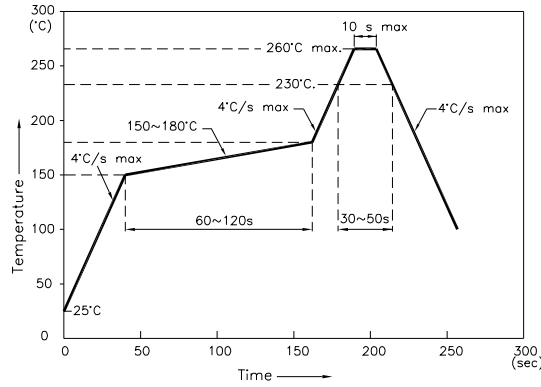
Ambient Temperature T_A (°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

KPHBM-2012CGKSYKC

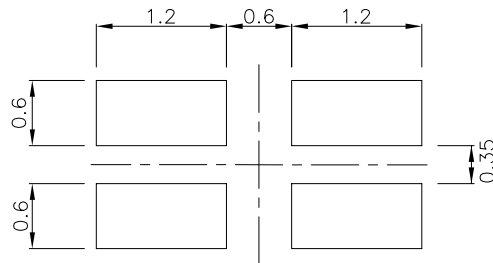
Reflow Soldering Profile For Lead-free SMT Process.



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; Tolerance: ±0.1)



Tape Specifications (Units : mm)

