

PRELIMINARY SPEC

Part Number: KPHBM-2012CGKSEKC

GREEN

SUPER BRIGHT ORANGE

Features

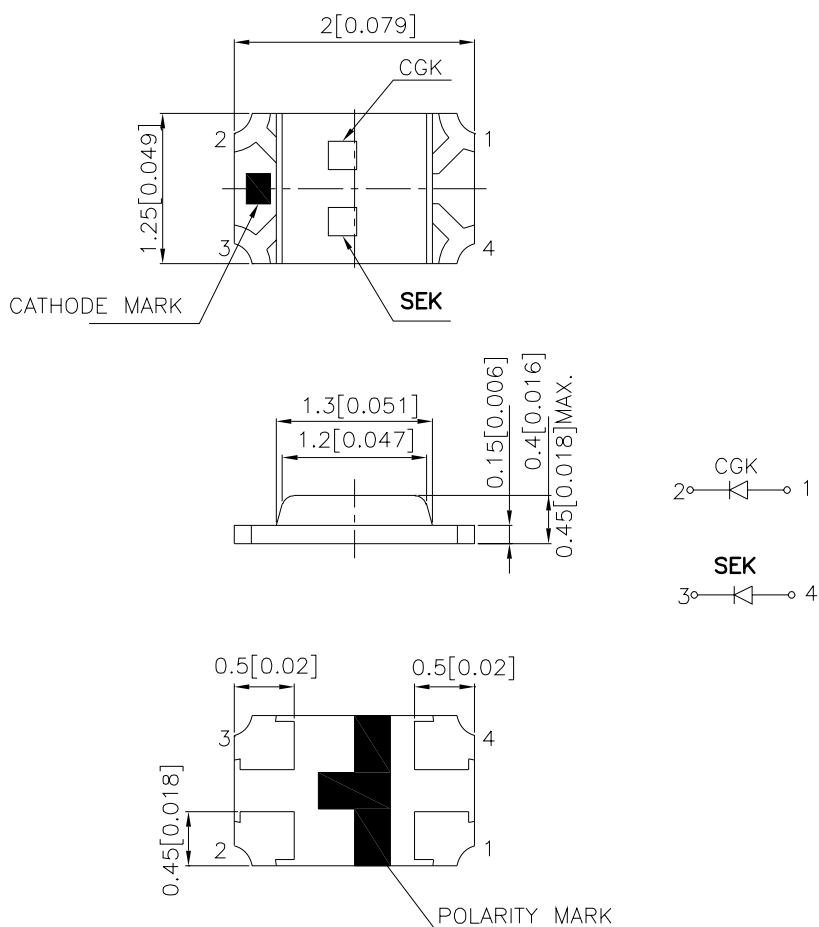
- 2.0mmx1.25mm SMT LED, 0.45mm MAX. THICKNESS.
- BI -COLOR, LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

Description

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

The Super Bright Orange 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 ± 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-2012CGKSEKC	GREEN (InGaAlP)	WATER CLEAR	36	80	120°
	SUPER BRIGHT ORANGE (InGaAlP)		110	250	

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 Orange	574 610		nm	I _F =20mA
λ _D [1]	Dominant Wavelength	Green Super Bright Orange	570 601		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	Green Super Bright Orange	20 29		nm	I _F =20mA
C	Capacitance	Green Super Bright Orange	15 15		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Green Super Bright Orange	2.1 2.1	2.5 2.5	V	I _F =20mA
I _R	Reverse Current	Green Super Bright Orange		10 10	uA	V _R = 5V

Notes:

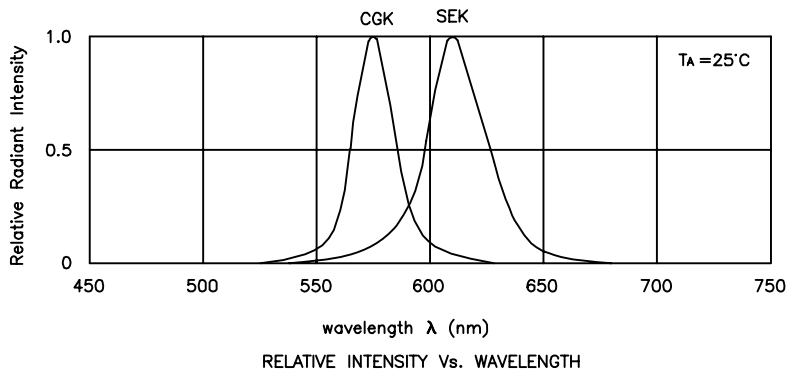
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Green	Super Bright Orange	Units
Power dissipation	75	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	150	195	mA
Reverse Voltage	5		
Operating/Storage Temperature	-40°C To +85°C		

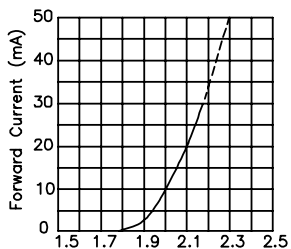
Note:

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

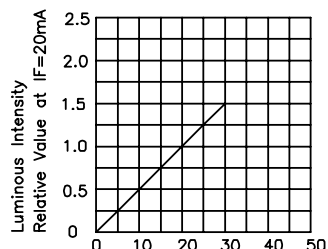


RELATIVE INTENSITY Vs. WAVELENGTH

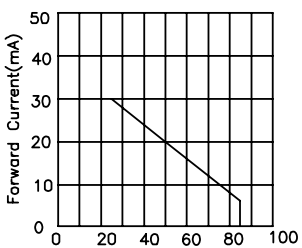
KPHBM-2012CGKSEKC Green



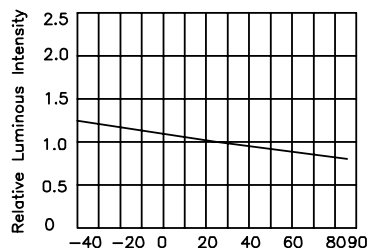
FORWARD CURRENT Vs. FORWARD VOLTAGE



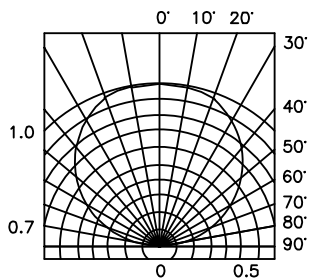
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

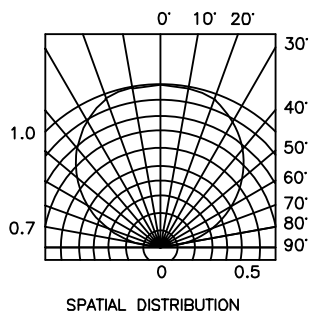
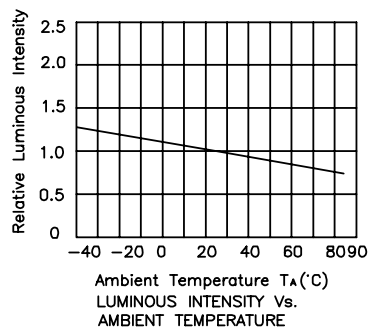
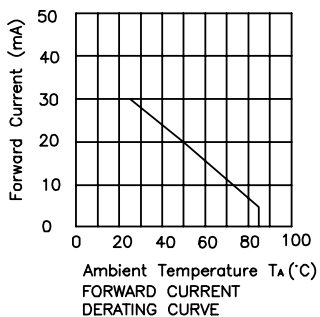
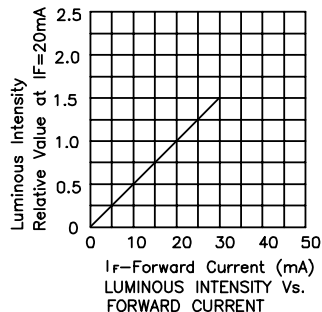
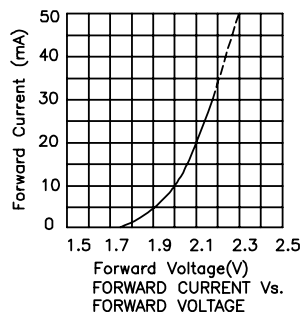


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



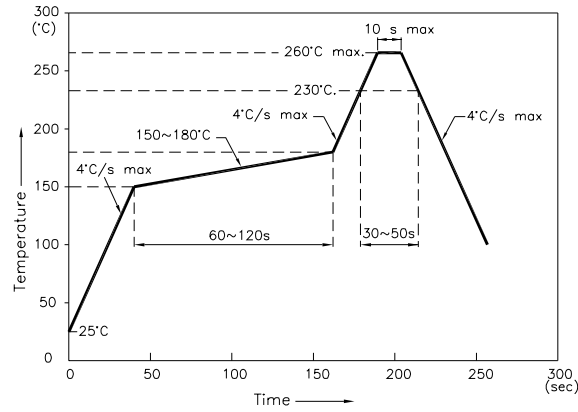
SPATIAL DISTRIBUTION

Super Bright Orange



KPHBM-2012CGKSEKC

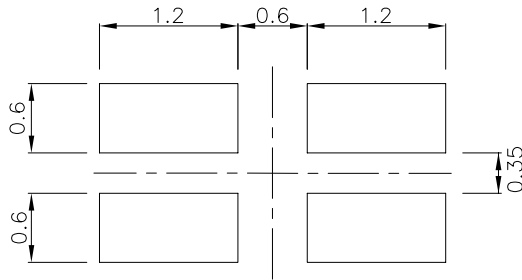
Reflow Soldering Profile For Lead-free SMT Process.



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)

