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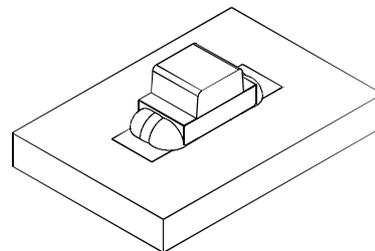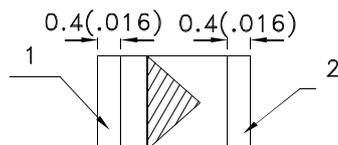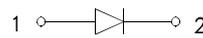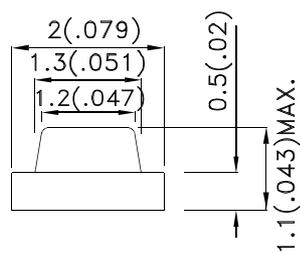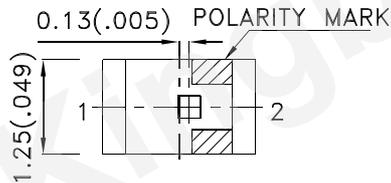Part Number: KP-2012CGCK   Green

Features

● 2.0mmx1.25mm SMT LED,1.1mm thickness.

● 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 AlGaInP 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. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.

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Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 20mA | | Viewing Angle [1] |
			Min.	Typ.	2θ1/2
KP-2012CGCK	Green (AlGaInP)	Water Clear	20	50	120°

Notes:
1. θ1/2 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 the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green	574		nm	I$_F$=20mA
λD [1]	Dominant Wavelength	Green	570		nm	I$_F$=20mA
Δλ1/2	Spectral Line Half-width	Green	20		nm	I$_F$=20mA
C	Capacitance	Green	15		pF	V$_F$=0V;f=1MHz
V$_F$ [2]	Forward Voltage	Green	2.1	2.5	V	I$_F$=20mA
I$_R$	Reverse Current	Green		10	uA	V$_R$=5V

Notes:
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

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

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

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RELATIVE INTENSITY Vs. WAVELENGTH

Green   **KP-2012CGCK**

FORWARD CURRENT Vs.
FORWARD VOLTAGE

LUMINOUS INTENSITY Vs.
FORWARD CURRENT

FORWARD CURRENT
DERATING CURVE

LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

SPATIAL DISTRIBUTION

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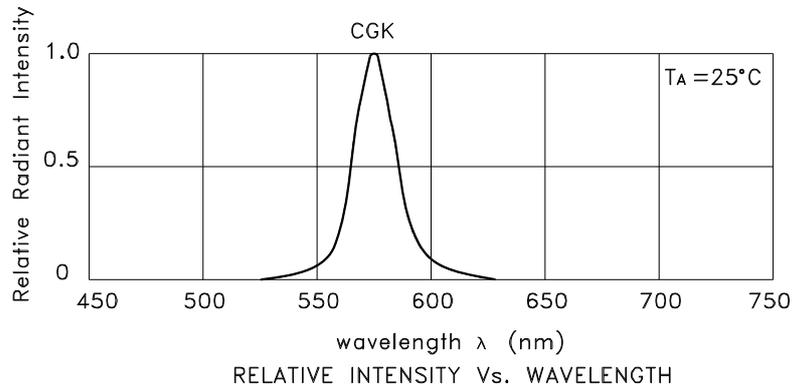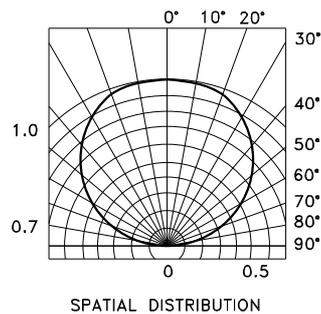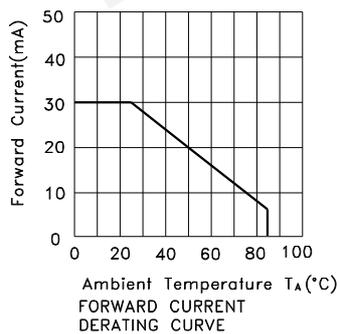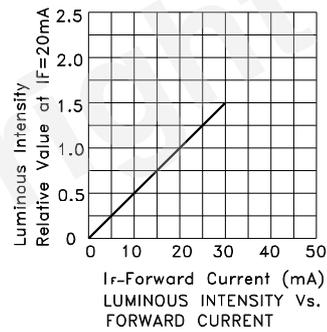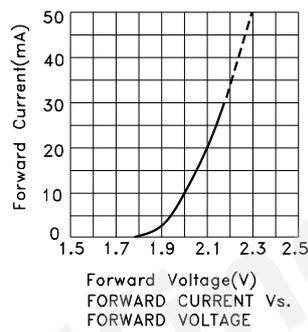
KP-2012CGCK

Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.

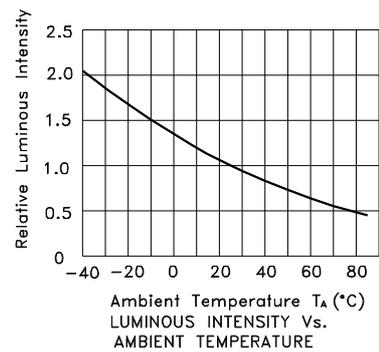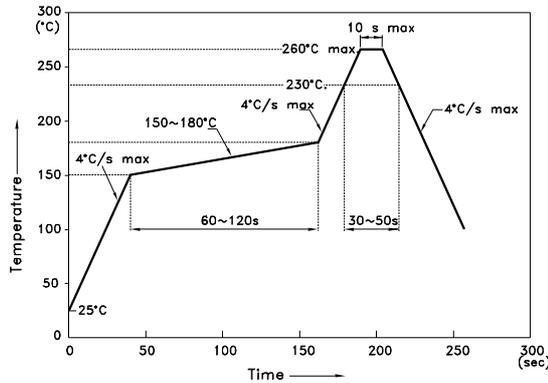
NOTES:
1. We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

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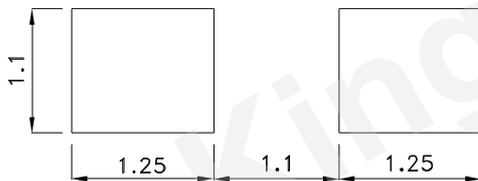
Reel Dimension

Tape Dimensions
(Units : mm)

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PACKING & LABEL SPECIFICATIONS   **KP-2012CGCK**

USER DIRECTION OF FEED

LABEL

LABEL

2,000pcs / Reel

1 Reel / Bag

OUTSIDE LABEL

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60K / 56# BOX

OUTSIDE LABEL

Kingbright

30K / 55# Box

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P/NO: KP-2012xxx

QTY: 2,000 pcs   Q.C.

S/N: XXXX

Q C
XX-XX-XXXX
PASSED

CODE: XXX

LOT NO:

xxxxxxxxxxxxxxxxxxxxxxx

RoHS Compliant

Terms and conditions for the usage of this document

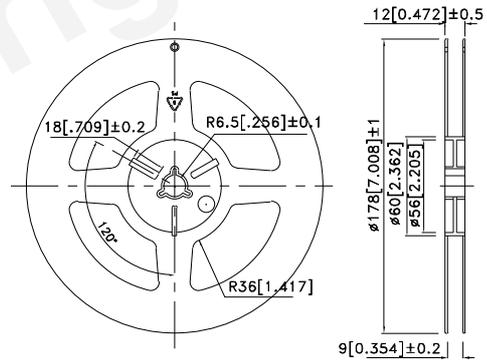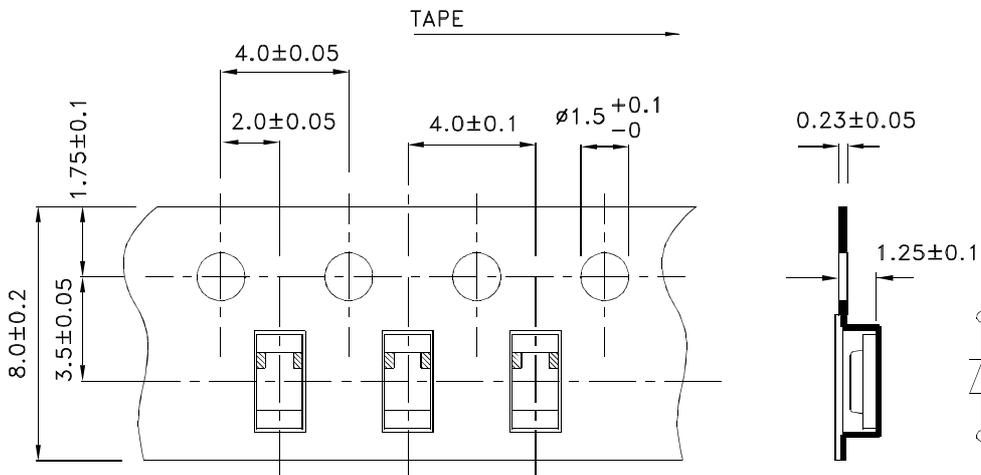1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.
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