

Surface Mount LEDs

Order code	Manufacturer code	Description
72-9568	n/a	REEL 2000 0402 BLUE SMD LED (RC)
72-9570	n/a	0402 BLUE SMD LED (RC)

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The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 04/07/2003



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

KPHHS-1005PBC-A

BLUE

Features

- 1.0mmX0.5mm SMT LED, 0.5mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE: 2000PCS / REEL .
- RoHS COMPLIANT.

Description

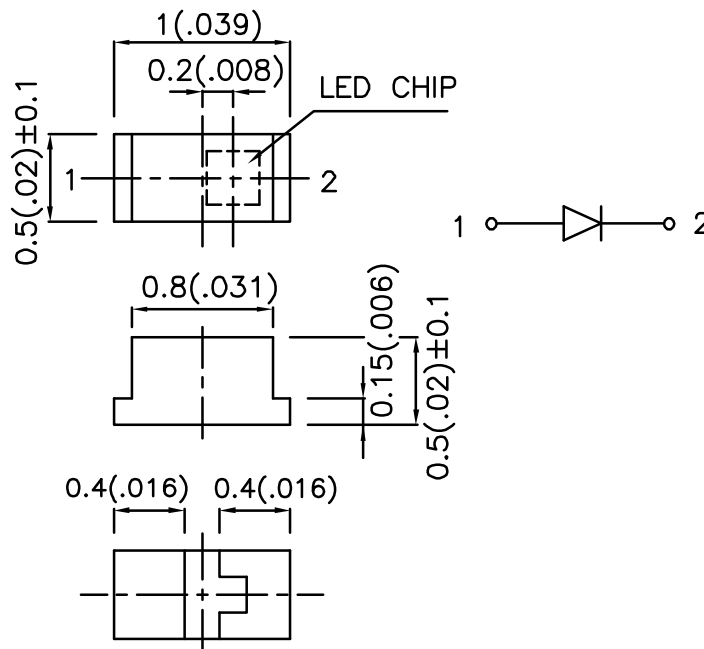
The Blue source color devices are made with InGaN on SiC Light Emitting Diode.

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

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) @ 20 mA		Viewing Angle
			Min.	Typ.	2 θ 1/2
KPHHS-1005PBC-A	BLUE (InGaN)	WATER CLEAR	18	60	120°

Note:

1. θ 1/2 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
λ_{peak}	Peak Wavelength	Blue	463		nm	I _F =20mA
λ_D	Dominant Wavelength	Blue	465		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Blue	21		nm	I _F =20mA
C	Capacitance	Blue	100		pF	V _F =0V;f=1MHz
V _F	Forward Voltage	Blue	3.3	3.8	V	I _F =20mA
I _R	Reverse Current	Blue		10	uA	V _R = 5V

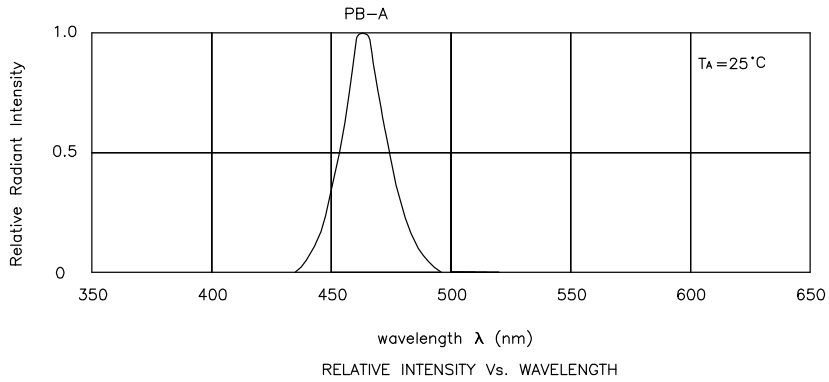
Absolute Maximum Ratings at T_A=25°C

Parameter	Blue	Units
Power dissipation	110	mW
DC Forward Current	30	mA
Peak Forward Current [1]	100	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	

Note:

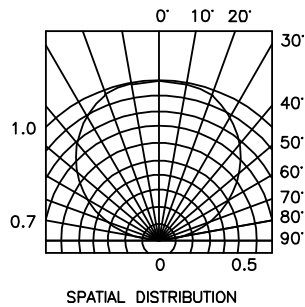
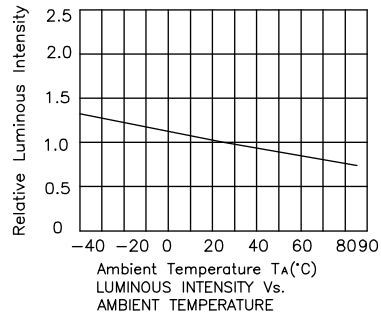
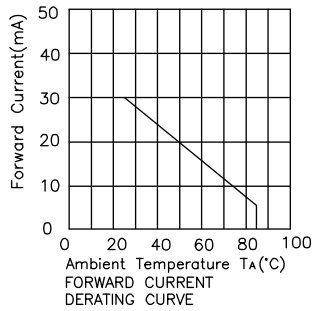
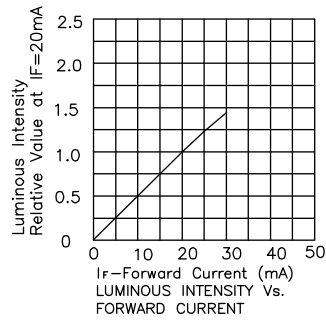
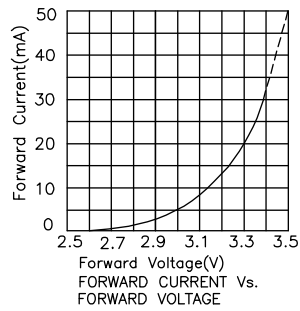
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

Kingbright



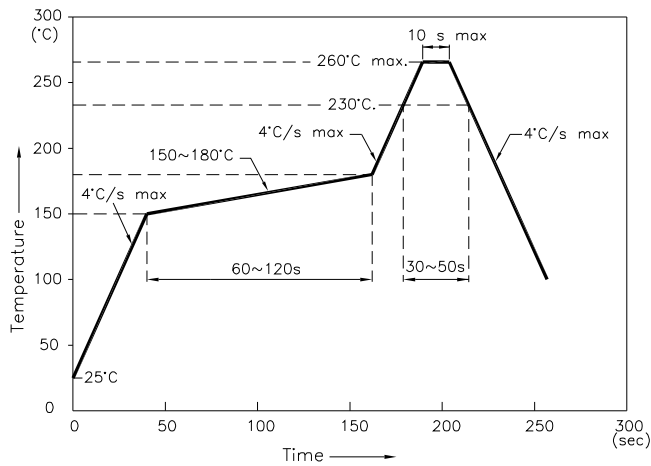
Blue

KPHHS-1005PBC-A



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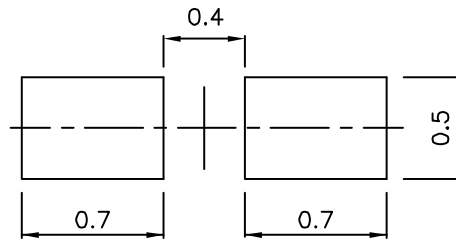
Reflow Soldering Profile For Lead-free SMT Process.



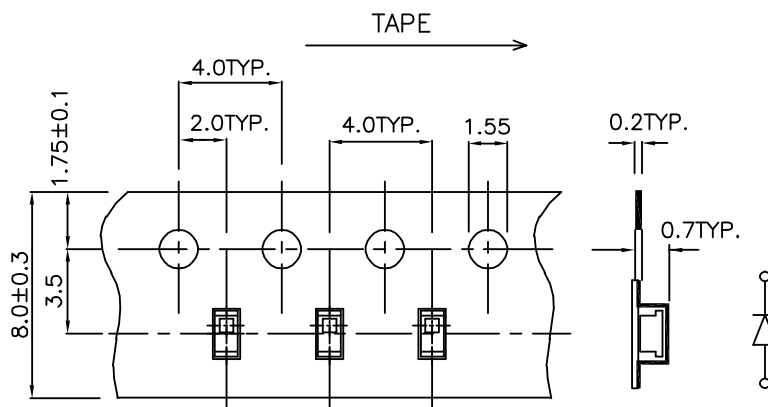
NOTES:

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, or wavelength), the typical accuracy of the sorting process is as follows:

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

Note: Accuracy may depend on the sorting parameters.