

# Kingbright®

## 3.5x2.8mm SINGLE COLOR SURFACE MOUNT LED LAMP

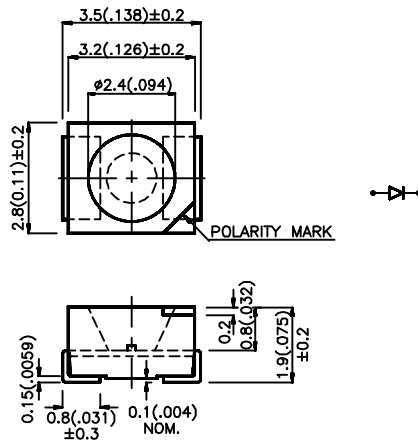
KA3528NC

### Features

- SINGLE COLOR AND BI-COLOR SMT LED.
- BOTH CHIPS CAN BE CONTROLLED SEPARATELY.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- IDEAL FOR BACKLIGHTING.

### Description

The Pure Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Pure Orange Light Emitting Diode



- Notes:
1. All dimensions are in millimeters (inches).
  2. Tolerance is  $\pm 0.25 (0.01")$  unless otherwise noted.
  3. Lead spacing is measured where the lead emerge package.
  4. Specifications are subjected to change without notice.

## Selection Guide

| Part No. | Dice                    | Lens Type   | Iv (mcd)<br>@ 20 mA |      | Viewing<br>Angle |
|----------|-------------------------|-------------|---------------------|------|------------------|
|          |                         |             | Min.                | Max. | $2\theta_{1/2}$  |
| KA3528NC | PURE ORANGE (GaAsP/GaP) | WATER CLEAR | 12.5                | 40   | 120°             |

Note:

1.  $\theta_{1/2}$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Electrical / Optical Characteristics at T<sub>A</sub>=25° C

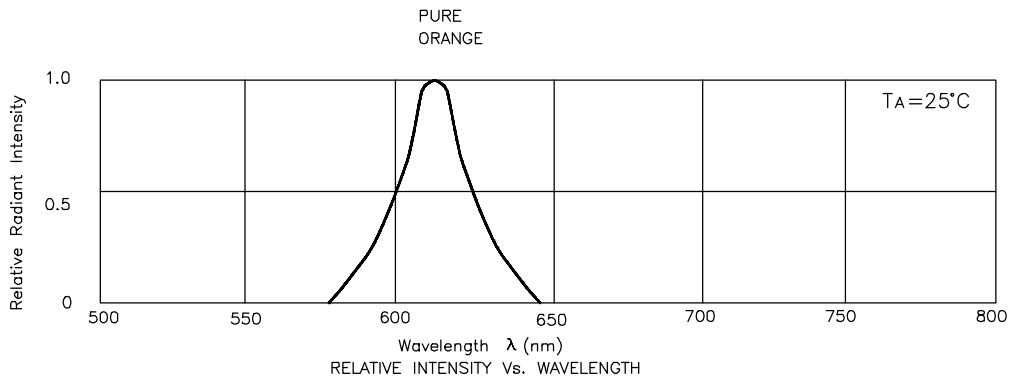
| Symbol                | Parameter               | Device      | Typ. | Max. | Units | Test Conditions |
|-----------------------|-------------------------|-------------|------|------|-------|-----------------|
| $\lambda_{peak}$      | Peak Wavelength         | Pure Orange | 610  |      | nm    | IF=20mA         |
| $\Delta\lambda_{1/2}$ | Spectral Line Halfwidth | Pure Orange | 35   |      | nm    | IF=20mA         |
| C                     | Capacitance             | Pure Orange | 15   |      | pF    | VF=0V; f=1MHz   |
| V <sub>F</sub>        | Forward Voltage         | Pure Orange | 2.0  | 2.6  | V     | IF=20mA         |
| I <sub>R</sub>        | Reverse Current         | All         | 10   |      | uA    | VR = 5V         |

## Absolute Maximum Ratings at T<sub>A</sub>=25° C

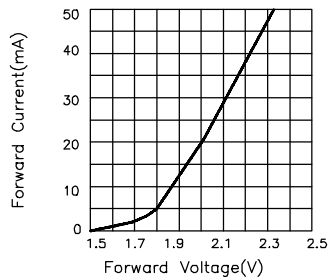
| Parameter                     | Pure Orange      | Units |
|-------------------------------|------------------|-------|
| Power dissipation             | 105              | mW    |
| DC Forward Current            | 30               | mA    |
| Peak Forward Current [1]      | 150              | mA    |
| Reverse Voltage               | 5                | V     |
| Operating/Storage Temperature | -40° C To +85° C |       |

Note:

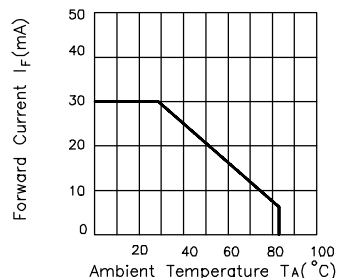
1. 1/10 Duty Cycle, 0.1ms Pulse Width .



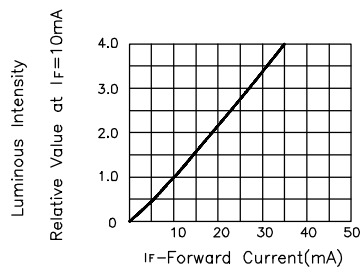
### Pure Orange KA3528NC



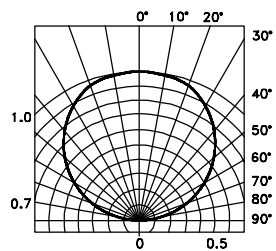
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

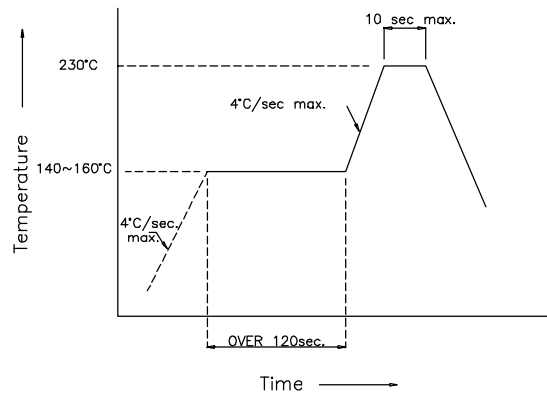


LUMINOUS INTENSITY Vs. FORWARD CURRENT



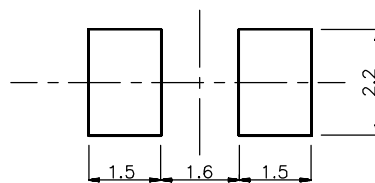
SPATIAL DISTRIBUTION

## KA3528NC SMT Reflow Soldering Instructions



## KA3528NC Recommended Soldering Pattern

(Units : mm)



### KA3528NC Tape Specifications

(Units : mm)

