# Kingbright

APK3020NC   PURE ORANGE

Features

● 3.0mmX2.0mm SMT LED, 1.3mm THICKNESS.

● LOW POWER CONSUMPTION.

● WIDE VIEWING ANGLE.

● IDEAL FOR BACKLIGHT AND INDICATOR.

● VARIOUS COLORS AND LENS TYPES AVAILABLE.

● PACKAGE:2000PCS/REEL

Description

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

Package Dimensions
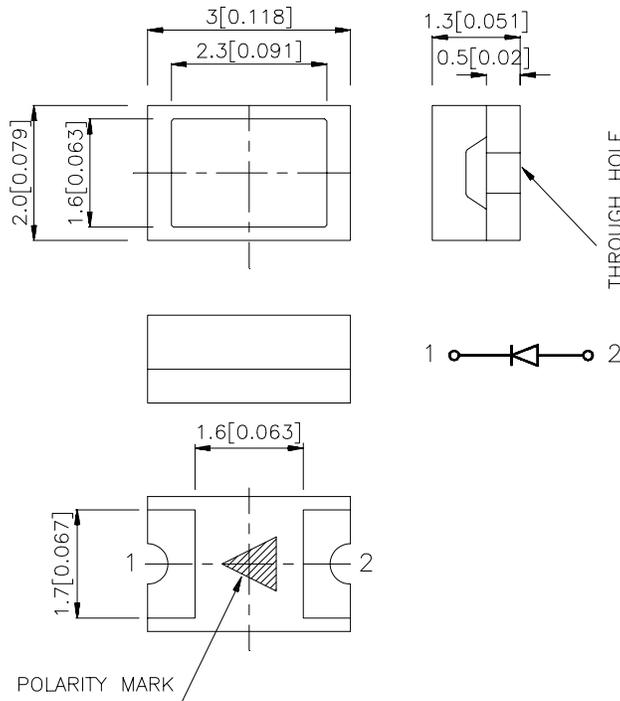
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2(0.0079") unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

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Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) @ 20 mA | | Viewing Angle |
			Min.	Typ.	2θ1/2
APK3020NC	PURE ORANGE (GaAsP/GaP)	WATER CLEAR	8	30	120°

Note:
1. θ1/2 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
λpeak	Peak Wavelength	Pure Orange	607		nm	IF=20mA
λD	Dominate 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_F	Forward Voltage	Pure Orange	2.05	2.5	V	IF=20mA
I_R	Reverse Current	Pure Orange		10	uA	VR = 5V

Absolute Maximum Ratings at T_A=25°C

Parameter	Pure Orange	Units
Power dissipation	105	mW
DC Forward Current	30	mA
Peak Forward Current [1]	145	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	

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

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$T_A = 25°C$

Relative Radiant Intensity
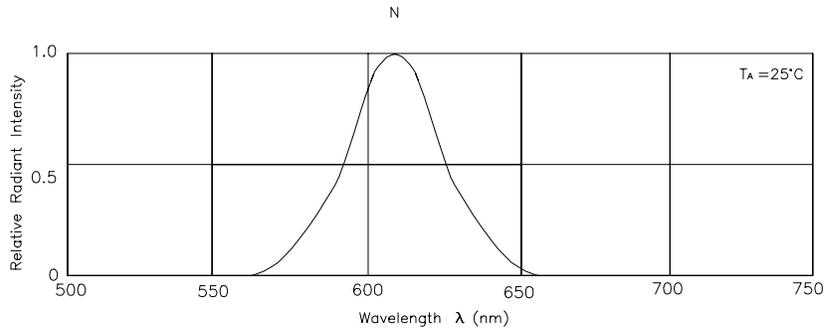
Wavelength λ (nm)

RELATIVE INTENSITY Vs. WAVELENGTH

Pure Orange APK3020NC

Forward Current(mA)

Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE

Luminous Intensity
Relative Value at IF=20mA

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

Forward Current(mA)

Ambient Temperature TA(°C)
FORWARD CURRENT
DERATING CURVE

SPATIAL DISTRIBUTION

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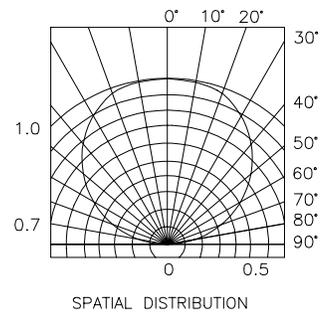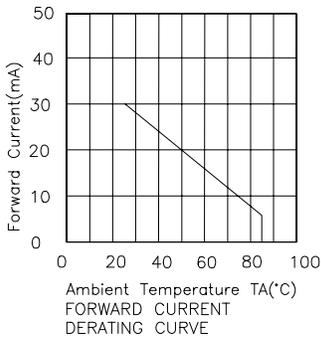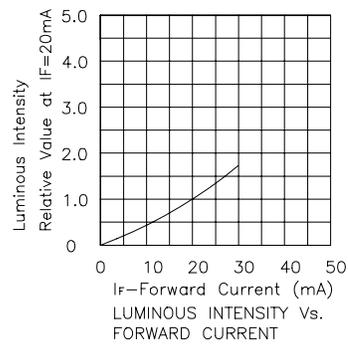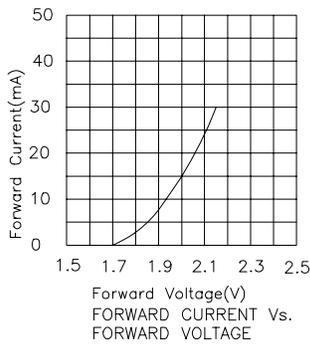
APK3020NC
SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling
process to normal temperature is required between first and
second soldering process.
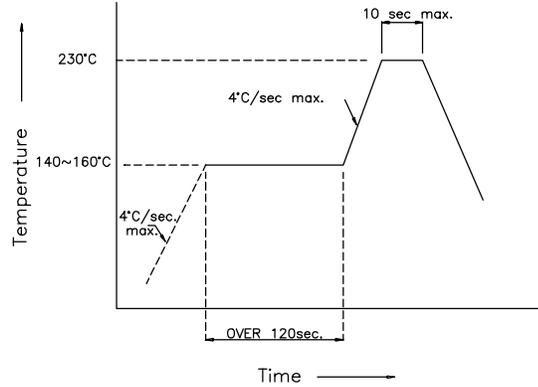
Recommended Soldering Pattern
(Units : mm)
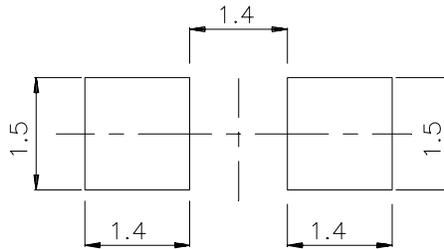
Tape Specifications
(Units : mm)