Kingbright

Part Number: APT3216SEC/J4-PRV

Super Bright Orange

Features

- 3.2mmx1.6mm SMT LED, 0.75mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

The Orange source color devices are made with AlGaInP Light Emitting Diode.

Package Dimensions

POLARITY MARK

1.6[0.063]

3.2[0.126]
2[0.079]
1.9[0.075]
0.75[0.03]
0.25[0.01]
0.5[0.02]
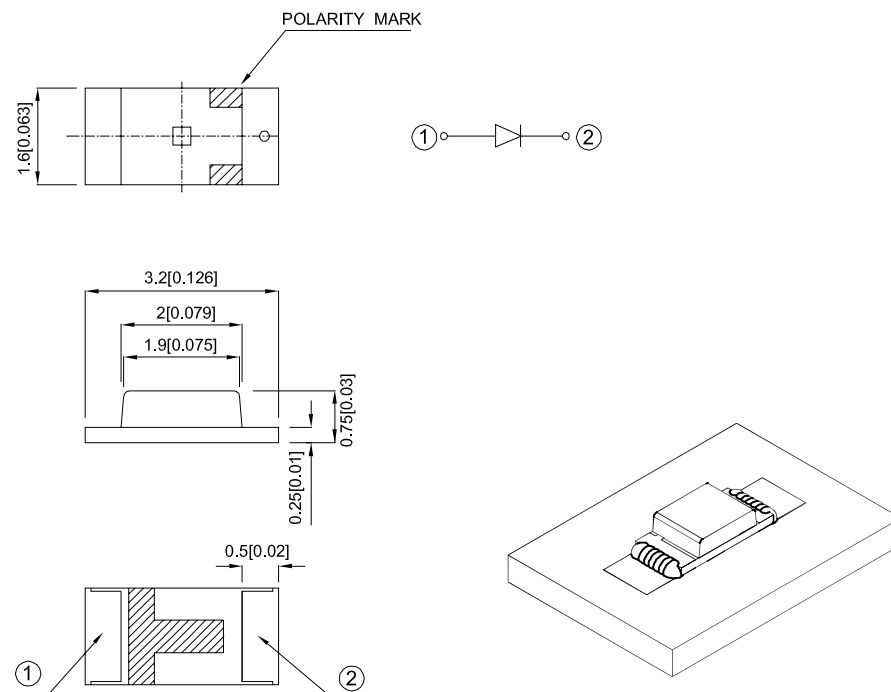
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2(0.008") unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.

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Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA Min.	Iv (mcd) [2] @ 20mA Typ.	Viewing Angle [1] 2θ1/2
APT3216SEC/J4-PRV	Super Bright Orange (AlGaInP)	Water Clear	1600	2300	120°
			*400	*600	

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%.
* Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

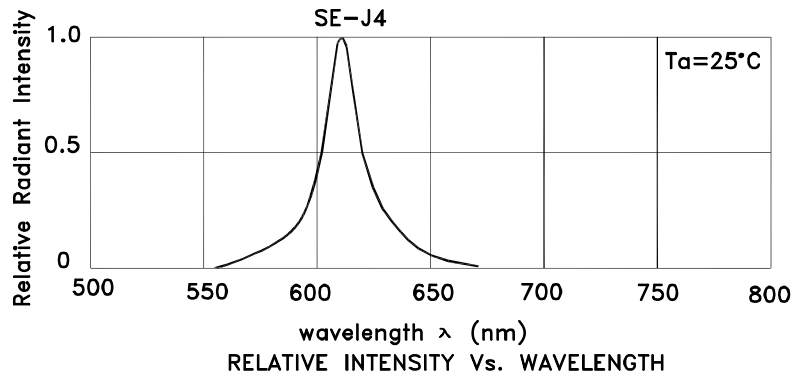| Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda peak$	Peak Wavelength	Super Bright Orange	611		nm	I_F=20mA
λD [1]	Dominant Wavelength	Super Bright Orange	605		nm	I_F=20mA
$\Delta\lambda 1/2$	Spectral Line Half-width	Super Bright Orange	17		nm	I_F=20mA
C	Capacitance	Super Bright Orange	27		pF	V_F=0V;f=1MHz
V_F [2]	Forward Voltage	Super Bright Orange	2.2	2.8	V	I_F=20mA
I_R	Reverse Current	Super Bright Orange		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.
4.Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or
   premature failure.

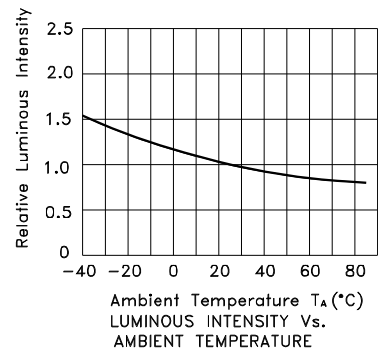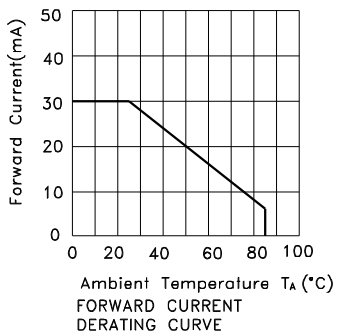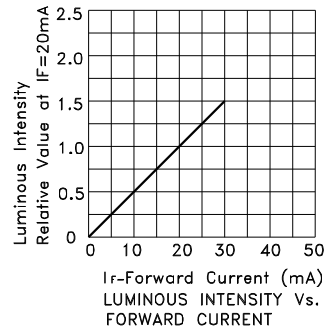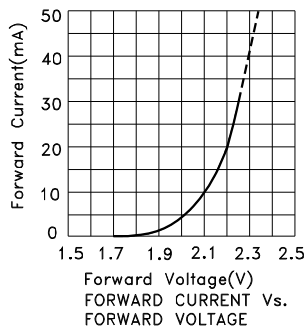## Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Orange	Units
Power dissipation	84	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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SE-J4

Ta=25°C

RELATIVE INTENSITY Vs. WAVELENGTH

Super Bright Orange   APT3216SEC/J4-PRV

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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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.
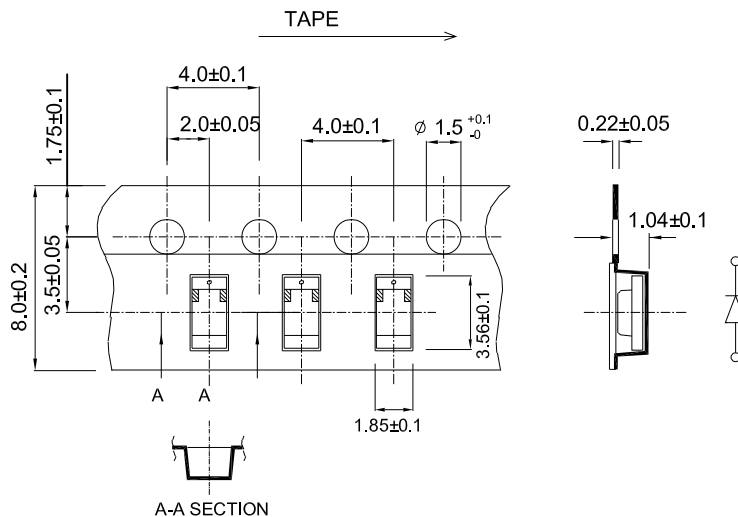3. Number of reflow process shall be 2 times or less.

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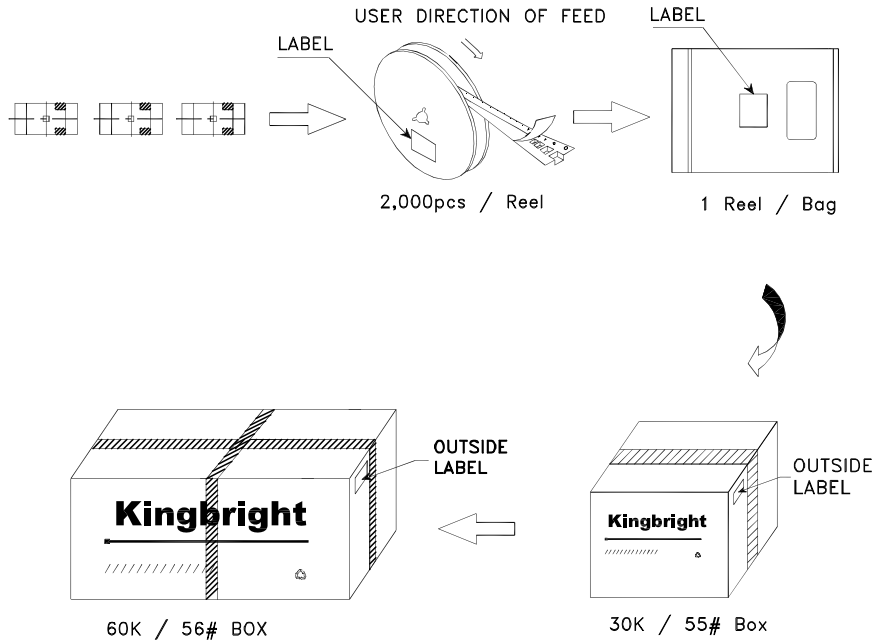## (Units : mm; Tolerance: ± 0.1)

Reel Dimension

Tape Dimensions
(Units : mm)

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PACKING & LABEL SPECIFICATIONS   APT3216SEC/J4-PRV

USER DIRECTION OF FEED   LABEL

LABEL

2,000pcs / Reel   1 Reel / Bag

OUTSIDE LABEL

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OUTSIDE LABEL

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60K / 56# BOX   30K / 55# Box

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P/NO: APT3216xxx

QTY: 2,000 pcs   Q.C.   Q C
                                        xx xx xxxx
S/N: XXXX   PASSED
CODE: XXX

LOT NO:

xxxxxxxxxxxxxxxxxxxxxxxx   RoHS Compliant

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2. The part number, type, and specifications mentioned in this document are subject to future change and improvement without notice. Before production usage customer should refer to the latest datasheet for the updated specifications.

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