

Kingbright

3.8x2.0mm DOME LENS SMD CHIP LED LAMP

APED3820SEC-F01

SUPER BRIGHT ORANGE

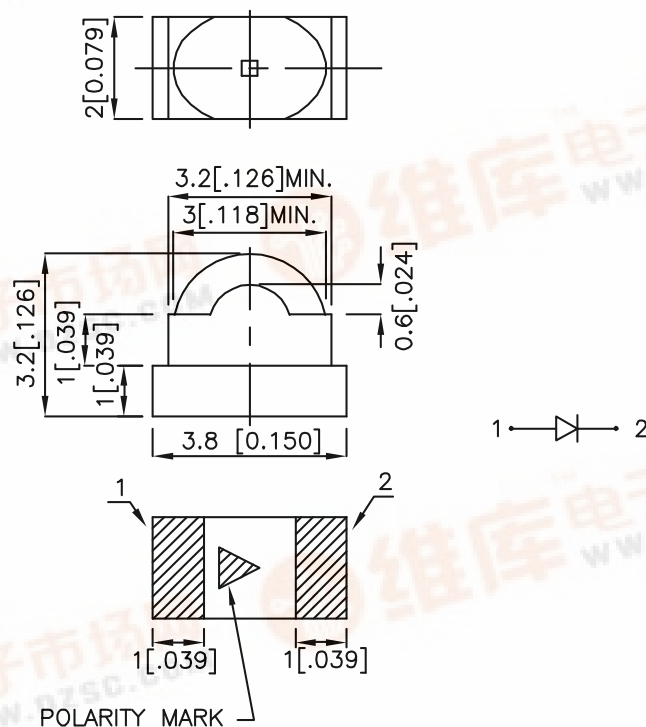
Features

- 3.8mmx2.0mm SMT LED, 3.2mm THICKNESS.
- LOW POWER CONSUMPTION.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 500PCS / REEL.
- RoHS COMPLIANT.

Description

The Super Bright Orange devices is made with DH InGaAlP (on GaAs substrate) light emitting diode chip.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.2 (0.008") unless otherwise noted.
3. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	2 θ 1/2
APED3820SEC-F01	SUPER BRIGHT ORANGE (InGaAlP)	WATER CLEAR	480	800	60°(H) 35°(V)

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 TA=25°C

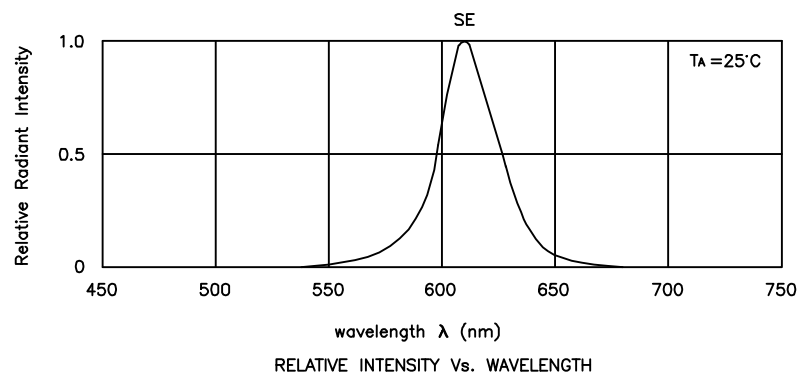
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Super Bright Orange	610		nm	IF=20mA
λ_D	Dominant Wavelength	Super Bright Orange	601		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Super Bright Orange	29		nm	IF=20mA
C	Capacitance	Super Bright Orange	30		pF	VF=0V;f=1MHz
VF	Forward Voltage	Super Bright Orange	2.0	2.5	V	IF=20mA
IR	Reverse Current	Super Bright Orange		10	uA	VR = 5V

Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Orange	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	195	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	

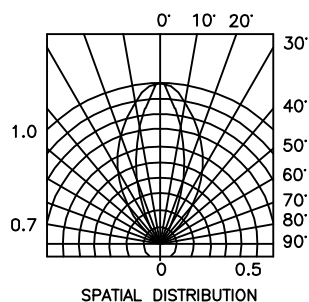
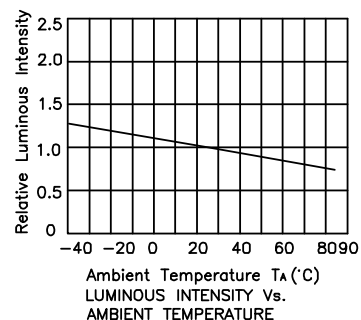
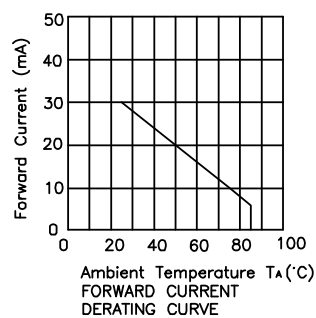
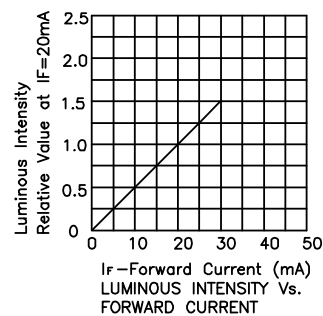
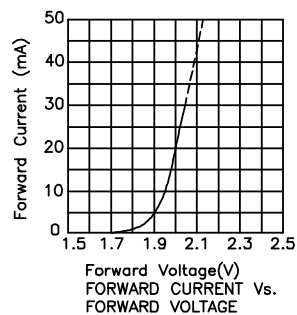
Note:

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



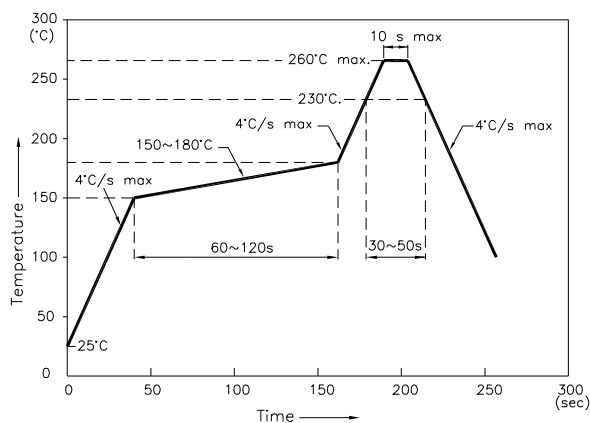
Super Bright Orange

APED3820SEC-F01



APED3820SEC-F01

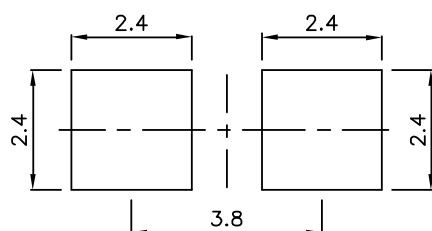
Reflow Soldering Profile For Lead-free SMT Process.



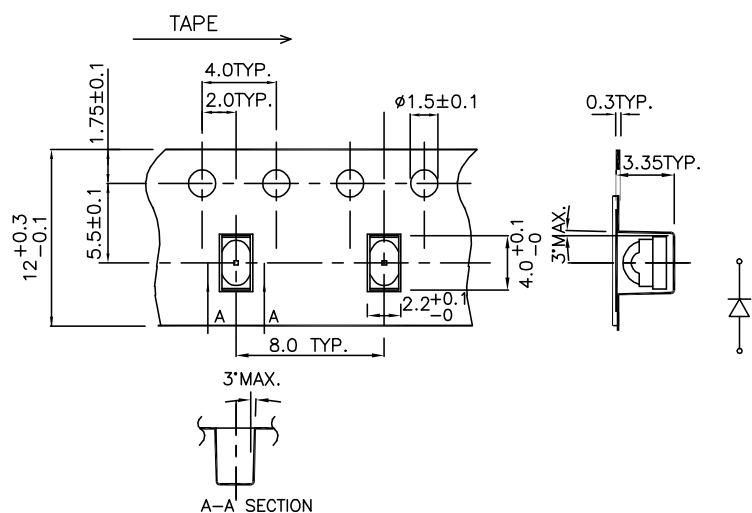
NOTES:

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: $\pm 1\text{nm}$
2. Luminous Intensity: $\pm 15\%$
3. Forward Voltage: $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.