

Kingbright

3.8x2.0mm DOME LENS SMD CHIP LED LAMP

Part Number: APED3820SYCK-F01

Super Bright Yellow

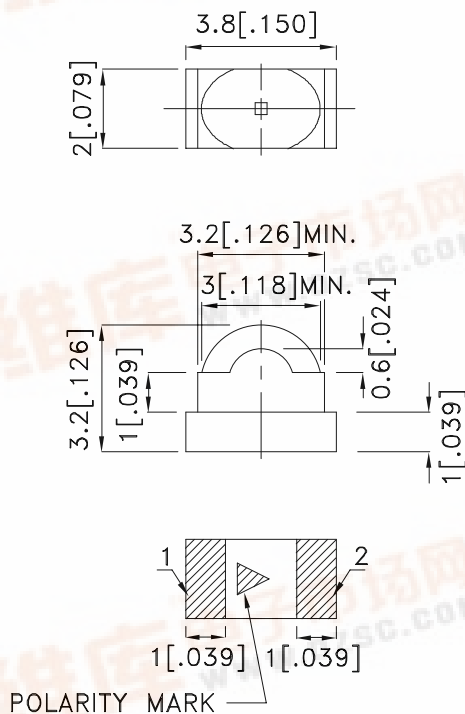
Features

- 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.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

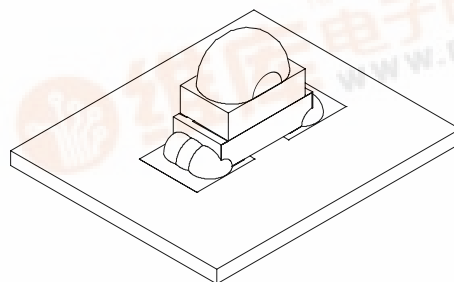
Description

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

Package Dimensions



1 → 2



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.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APED3820SYCK-F01	Super Bright Yellow (InGaAlP)	WATER CLEAR	70	200	60°(H) 35°(V)

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Yellow	590		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Yellow	590		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow	20		nm	IF=20mA
C	Capacitance	Super Bright Yellow	20		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Yellow	2	2.5	V	IF=20mA
IR	Reverse Current	Super Bright Yellow		10	uA	VR=5V

Notes:

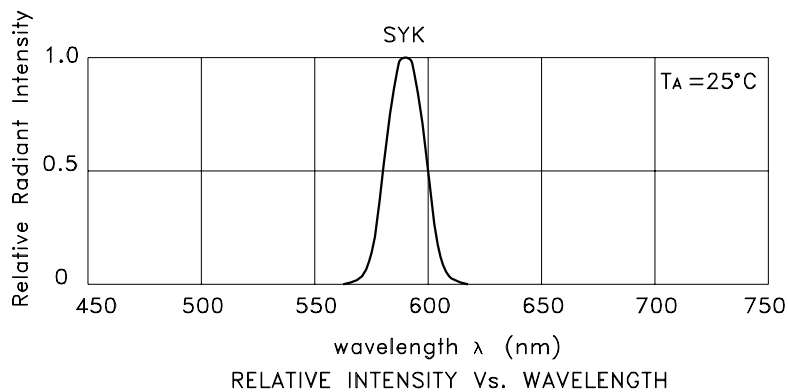
- 1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Yellow	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	175	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.



Super Bright Yellow

APED3820SYCK-F01

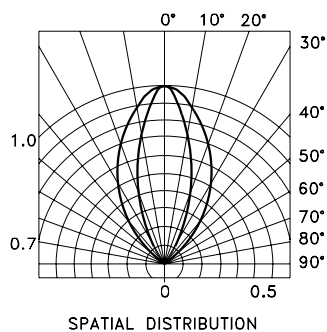
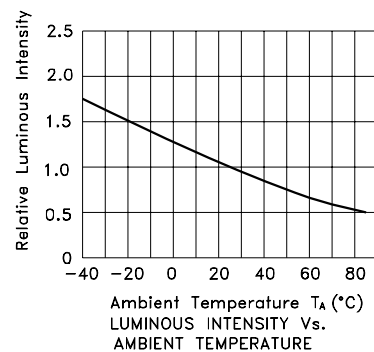
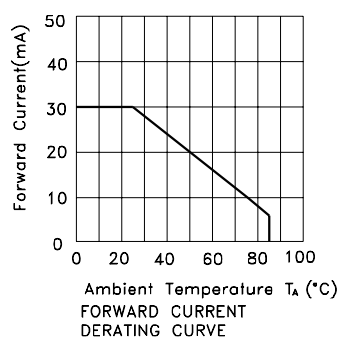
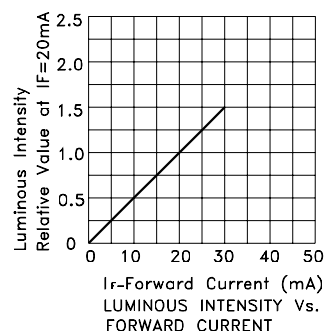
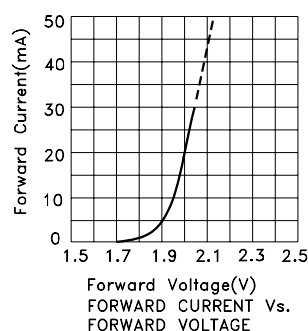
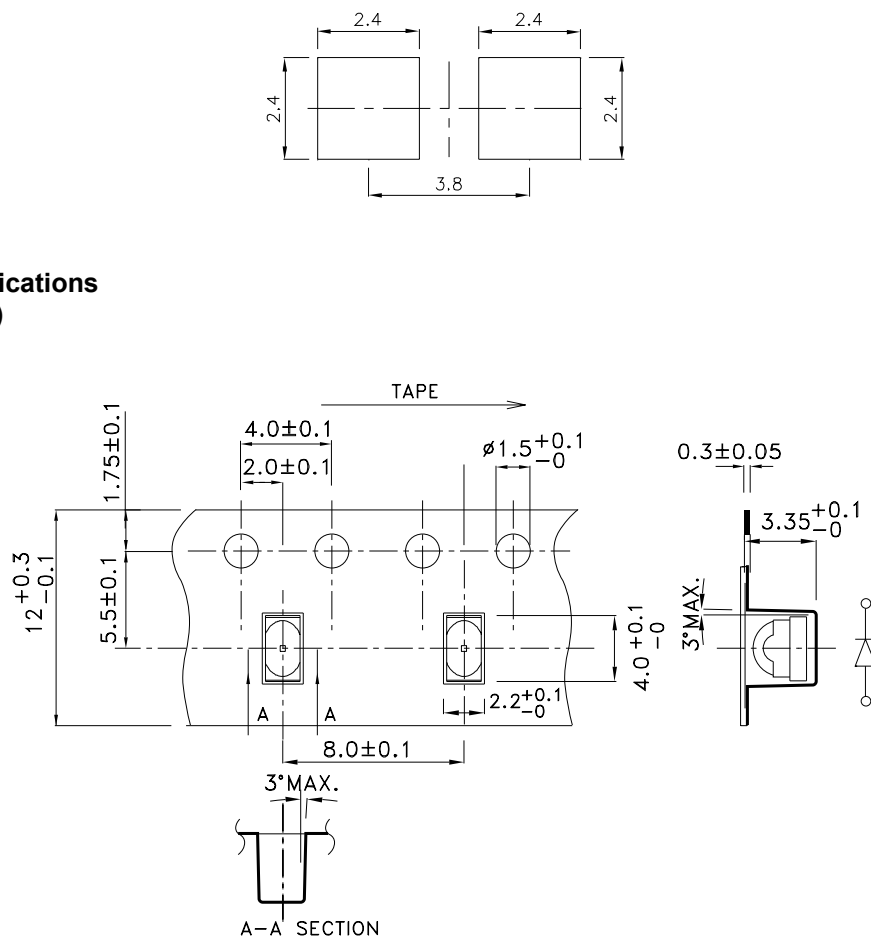


Figure 1 is a line graph showing the temperature profile of the furnace during the heat treatment of the samples. The Y-axis represents Temperature in degrees Celsius (°C), ranging from 0 to 300. The X-axis represents Time in seconds (sec), ranging from 0 to 300. The profile starts at 25°C at 0 seconds. It rises at a rate of 4°C/s to 150°C at 40 seconds. From 150°C, it rises at a rate of 1°C/s to 180°C at 120 seconds. From 180°C, it rises at a rate of 4°C/s to 230°C at 160 seconds. From 230°C, it rises at a rate of 4°C/s to 260°C at 180 seconds. It then holds at 260°C for 10 seconds (190s). Finally, it cools at a rate of 4°C/s to 100°C at 250 seconds.

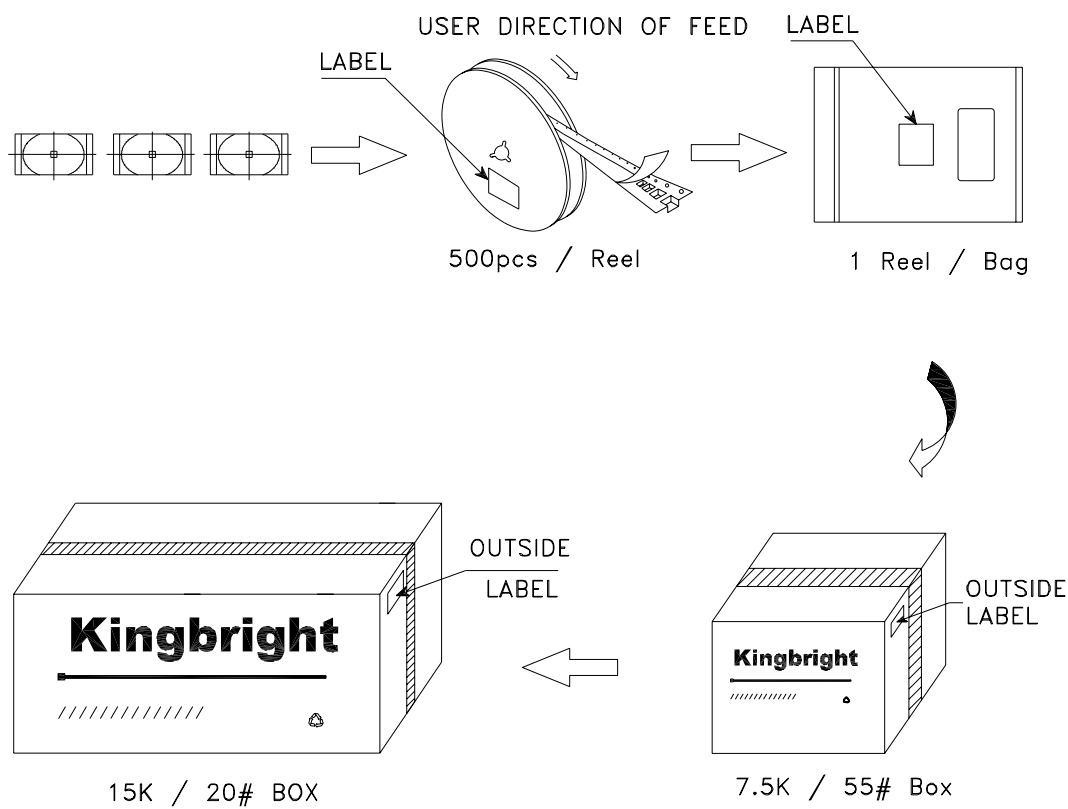
Time (sec)	Temperature (°C)	Heating Rate (°C/s)
0	25	-
40	150	4
120	180	1
160	230	4
180	260	4
190	260	0
250	100	-4

Tape Specifications (Units : mm)



PACKING & LABEL SPECIFICATIONS

APED3820SYCK-F01



Kingbright	
P/NO: APED3820xxx	
QTY: 500 pcs	Q.C.
S/N: XXXX	Q C XX XX XXXX PASSED
CODE: XXX	
LOT NO:	
	
XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
MADE IN CHINA	RoHS Compliant