

ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

### **Features**

- 2.8mmX1.2mmx0.8mm right angle SMD LED, 0.8mm thickness.
- Low power consumption.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- · RoHS compliant.

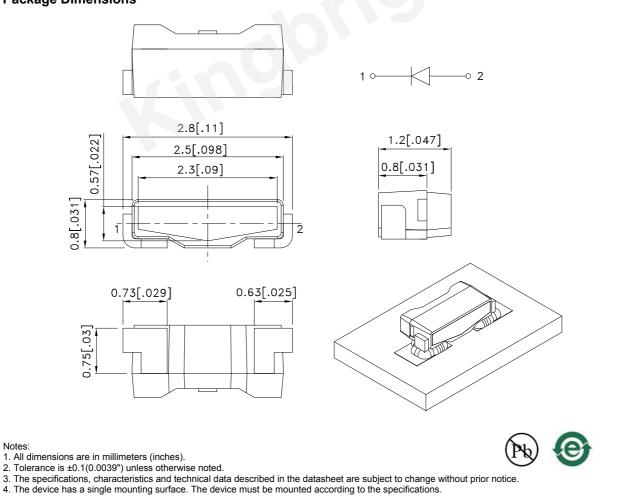
## 2.8X0.8mm RIGHT ANGLE SMD CHIP LED LAMP

Part Number: KA-2810AQBS-D Blue

### Descriptions

- The Blue source color devices are made with InGaN Light Emitting Diode.
- Electrostatic discharge and power surge could damage the LEDs.
- It is recommended to use a wrist band or antielectrostatic glove when handling the LEDs.
- All devices, equipments and machineries must be electrically grounded.

### **Package Dimensions**



SPEC NO: DSAK2453 **APPROVED: Wynec** 

Notes:

**REV NO: V.8B CHECKED: Allen Liu** 

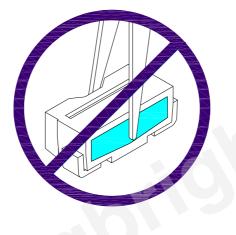
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## **Handling Precautions**

Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force. As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might lead to damage and premature failure of the LED.

1. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.



2. As silicone encapsulation is permeable to gases, some corrosive substances such as  $H_2S$  might corrode silver plating of leadframe. Special care should be taken if an LED with silicone encapsulation is to be used near such substances.

#### **Selection Guide** lv (mcd) [2] Viewing @ 20mA Angle [1] Part No. **Emitting Color (Material)** Lens Type Min. 201/2 Тур. KA-2810AQBS-D Blue (InGaN) Water Clear 80 150 110°

Notes:

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

3. Luminous intensity value is traceable to CIE127-2007 standards.

### Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Emitting Color	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue	460		nm	I⊧=20mA
λD [1]	Dominant Wavelength	Blue	465		nm	I⊧=20mA
Δλ1/2	Spectral Line Half-width	Blue	25		nm	IF=20mA
С	Capacitance	Blue	100		pF	VF=0V;f=1MHz
Vf [2]	Forward Voltage	Blue	3.3	4	V	IF=20mA
IR	Reverse Current	Blue		50	uA	VR=5V

Notes:

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

3.Wavelength value is traceable to CIE127-2007 standards.

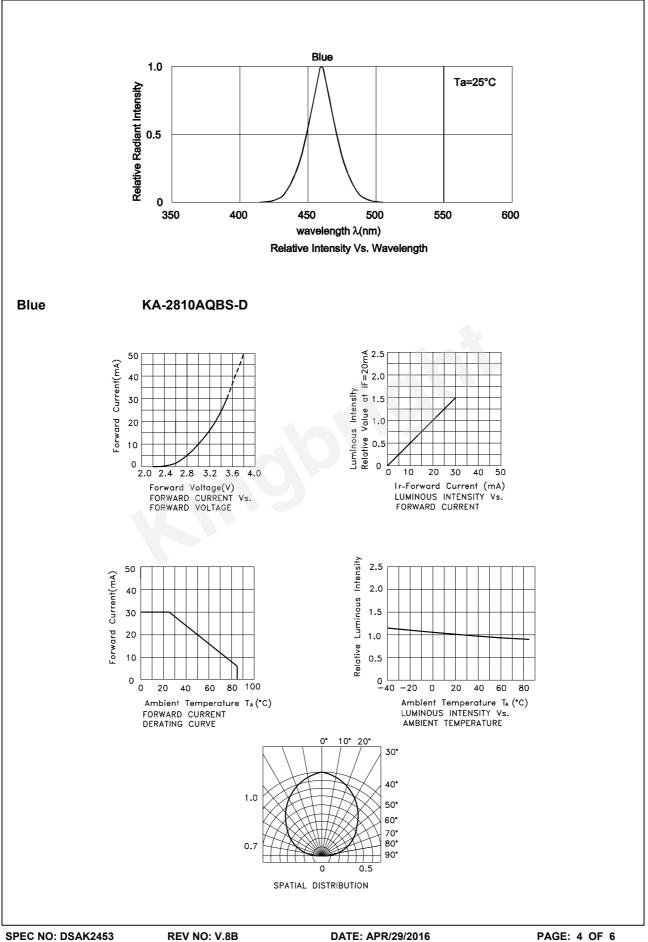
4. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

### Absolute Maximum Ratings at TA=25°C

Parameter	Values	Units		
Power dissipation	120	mW		
DC Forward Current	30	mA		
Peak Forward Current [1]	150	mA		
Reverse Voltage	5	V		
Electrostatic Discharge Threshold (HBM)	250	V		
Operating Temperature	-40°C To +85°C			
Storage Temperature	-40°C To +85°C			

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

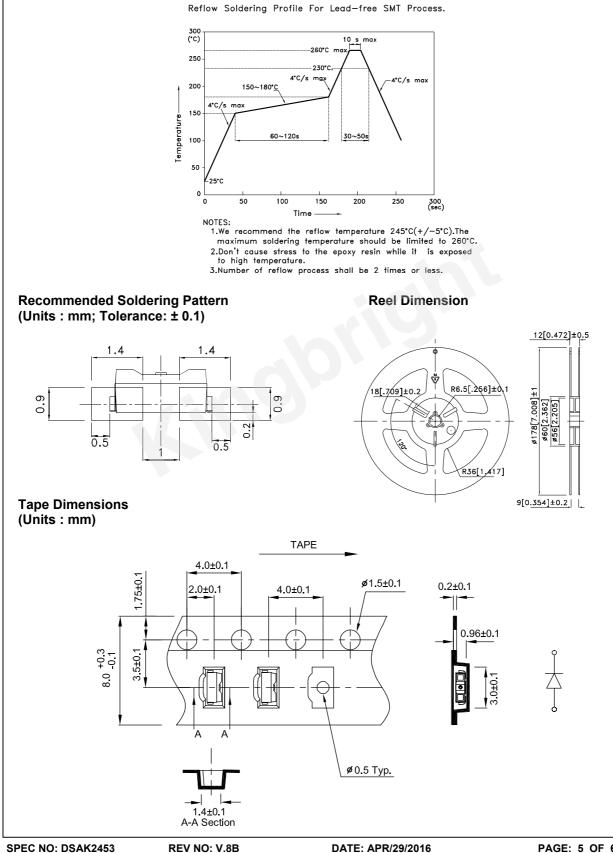
Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.



## KA-2810AQBS-D

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.

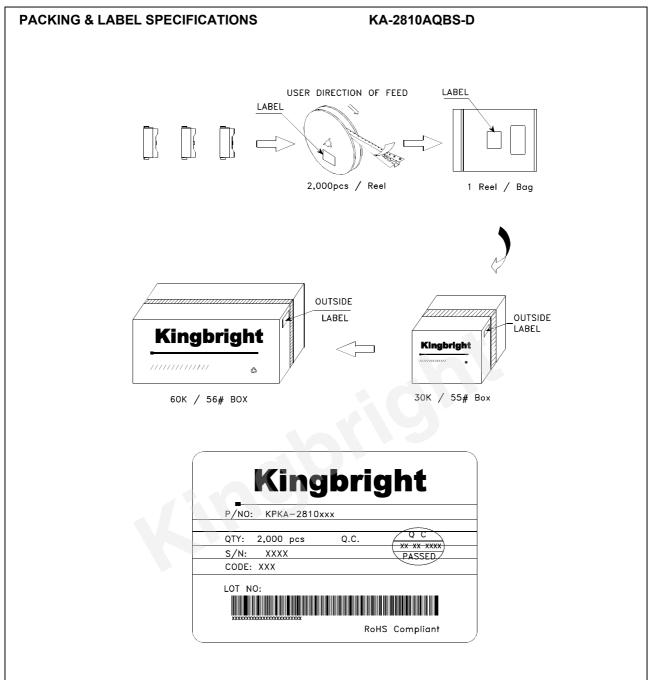


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