

### SUBMINIATURE SOLID STATE LAMP

Part Number: KM2520ZGC-E08 Green



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

#### **Features**

- Subminiature package.
- Yoke lead.
- Long life solid state reliability.
- Low package profile.
- Moisture sensitivity level : level 3.
- Package: 1000pcs / reel.
- RoHS compliant.

#### Description

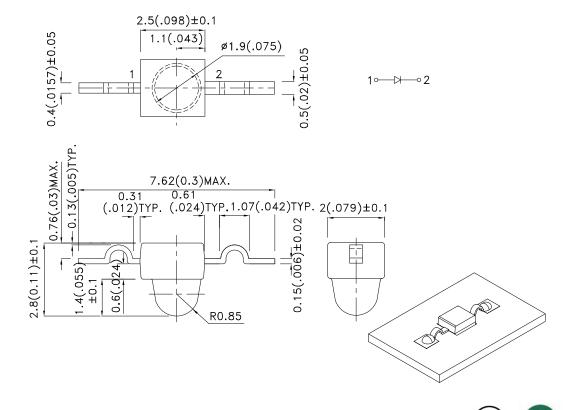
The Green source color devices are made with InGaN Light Emitting Diode.

Static electricity and surge damage the LEDS.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

## **Package Dimensions**



#### Notes:

- All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
- 3. Lead spacing is measured where the leads emerge from the package.
- 4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
- 5. The device has a single mounting surface. The device must be mounted according to the specifications.

 SPEC NO: DSAK6974
 REV NO: V.2
 DATE: DEC/21/2010
 PAGE: 1 OF 5

 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: Y.H.Wu
 ERP: 1202002539

## **Selection Guide**

| Part No.      | Dice          | Lens Type   | lv (mcd) [2]<br>@ 20mA |      | Viewing<br>Angle [1] |
|---------------|---------------|-------------|------------------------|------|----------------------|
|               |               | 2.          | Min.                   | Тур. | 201/2                |
| KM2520ZGC-E08 | Green (InGaN) | Water Clear | 3500                   | 4500 | 20°                  |

- 1. 01/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
  2. Luminous intensity/ luminous Flux: +/-15%.

# Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter                | Device | Тур. | Max. | Units | Test Conditions |
|--------|--------------------------|--------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Green  | 520  |      | nm    | IF=20mA         |
| λD [1] | Dominant Wavelength      | Green  | 525  |      | nm    | IF=20mA         |
| Δλ1/2  | Spectral Line Half-width | Green  | 35   |      | nm    | IF=20mA         |
| С      | Capacitance              | Green  | 100  |      | pF    | VF=0V;f=1MHz    |
| VF [2] | Forward Voltage          | Green  | 3.2  | 4    | V     | IF=20mA         |
| lr     | Reverse Current          | Green  |      | 50   | uA    | VR=5V           |

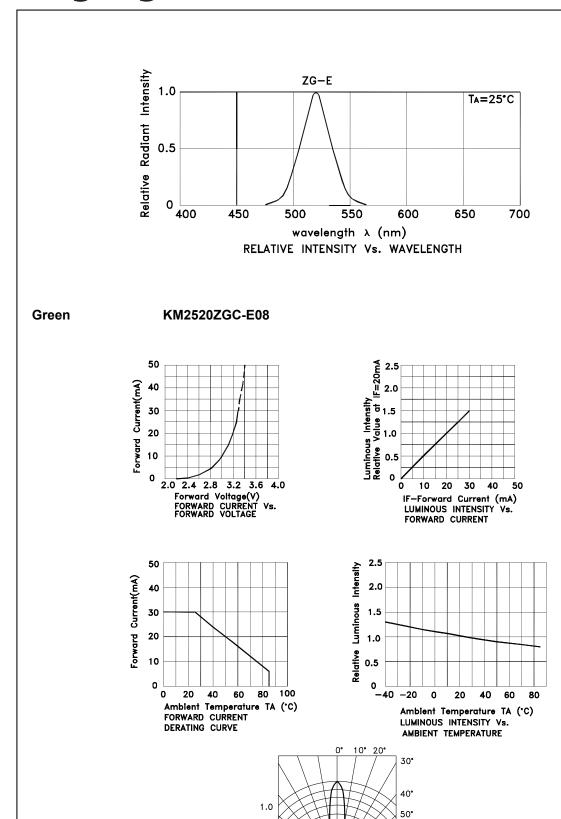
- Notes: 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

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

| Parameter                | Green          |    |  |
|--------------------------|----------------|----|--|
| Power dissipation        | 120            | mW |  |
| DC Forward Current       | 30             | mA |  |
| Peak Forward Current [1] | 100            | 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.

SPEC NO: DSAK6974 **REV NO: V.2** DATE: DEC/21/2010 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Y.H.Wu ERP: 1202002539



 SPEC NO: DSAK6974
 REV NO: V.2
 DATE: DEC/21/2010
 PAGE: 3 OF 5

 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: Y.H.Wu
 ERP: 1202002539

SPATIAL DISTRIBUTION

0.7

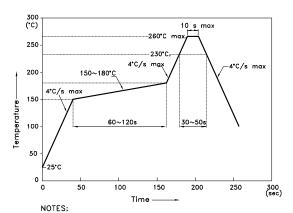
60° 70° 80°

90°

#### KM2520ZGC-E08

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.



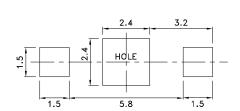
- NOTES:

  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.

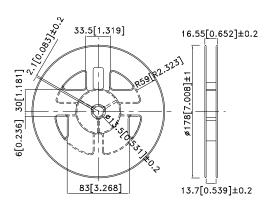
  3.Number of reflow process shall be 2 times or less.

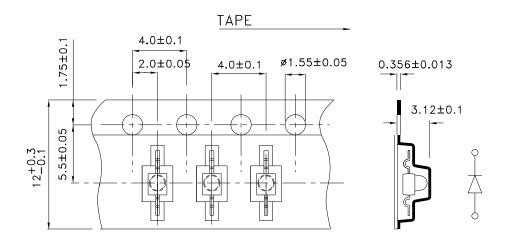
**Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



## **Tape Dimensions** (Units : mm)

### **Reel Dimension**

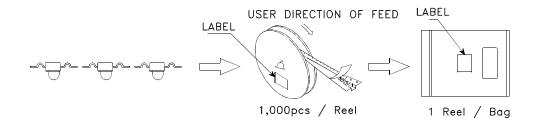


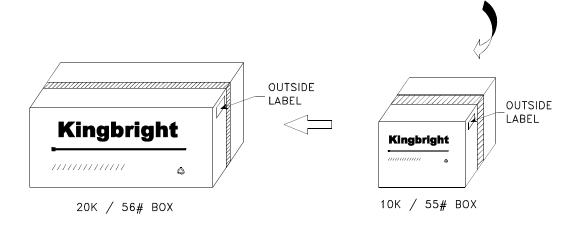


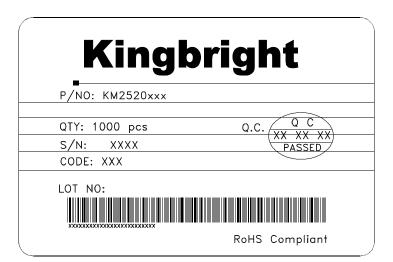
PAGE: 4 OF 5 SPEC NO: DSAK6974 **REV NO: V.2 DATE: DEC/21/2010** APPROVED: WYNEC **CHECKED: Allen Liu** ERP: 1202002539 DRAWN: Y.H.Wu

### **PACKING & LABEL SPECIFICATIONS**

### KM2520ZGC-E08







SPEC NO: DSAK6974 APPROVED: WYNEC REV NO: V.2 CHECKED: Allen Liu DATE: DEC/21/2010 DRAWN: Y.H.Wu PAGE: 5 OF 5 ERP: 1202002539