

## KPGF-1012GBRC-07

1 x 1 x 0.25 mm Full-Color Surface Mount LED

(Preliminary Spec)

### DESCRIPTIONS

- The Green source color devices are made with InGaN on Sapphire Light Emitting Diode
- The Blue source color devices are made with InGaN Light Emitting Diode
- The Hyper-Red source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode
- Electrostatic discharge and power surge could damage the LEDs
- It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs
- All devices, equipments and machineries must be electrically grounded

### FEATURES

- 1.0 mm x 1.0 mm SMD LED, 0.25 mm thickness
- Low power consumption
- Package: 4000 pcs / reel
- Moisture sensitivity level: 3
- Halogen-free
- RoHS compliant

### APPLICATIONS

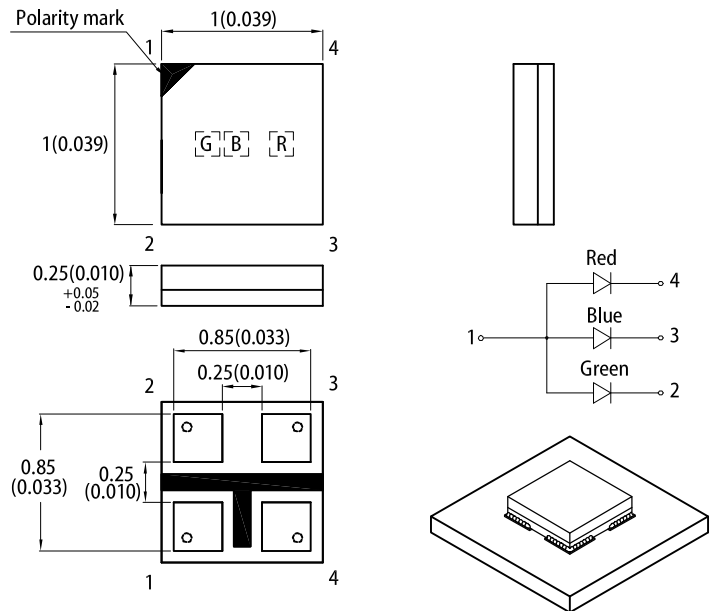
- Backlight
- Status indicator
- Home and smart appliances
- Wearable and portable devices
- Healthcare applications

### ATTENTION

Observe precautions for handling  
Electrostatic discharge sensitive devices

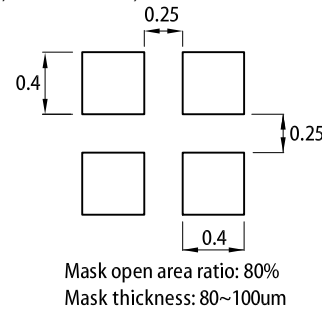


### PACKAGE DIMENSIONS



### RECOMMENDED SOLDERING PATTERN

(units : mm ; tolerance : ± 0.1)



#### Notes:

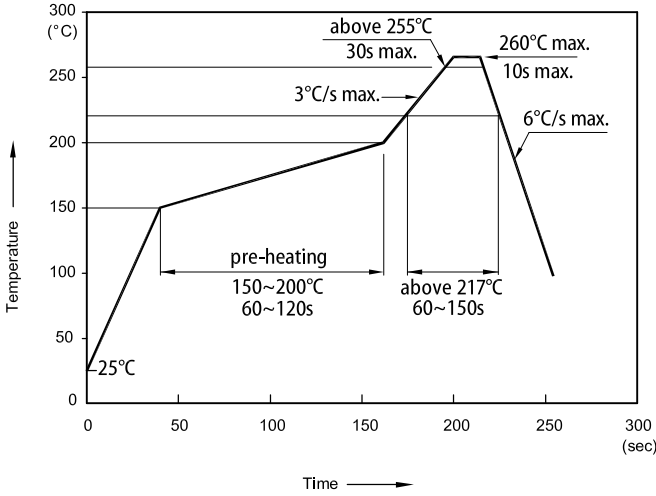
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.1(0.004") unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.

### SELECTION GUIDE

| Part Number      | Emitting Color (Material) | Lens Type   | Iv (mcd) @ 5mA <sup>[2]</sup> |      | Viewing Angle <sup>[1]</sup> |
|------------------|---------------------------|-------------|-------------------------------|------|------------------------------|
|                  |                           |             | Min.                          | Typ. | 2θ1/2                        |
| KPGF-1012GBRC-07 | ■ Green (InGaN)           | Water Clear | 80                            | 220  | 150°                         |
|                  | ■ Blue (InGaN)            |             | 10                            | 23   |                              |
|                  | ■ Hyper Red (AlGaInP)     |             | 15                            | 30   |                              |

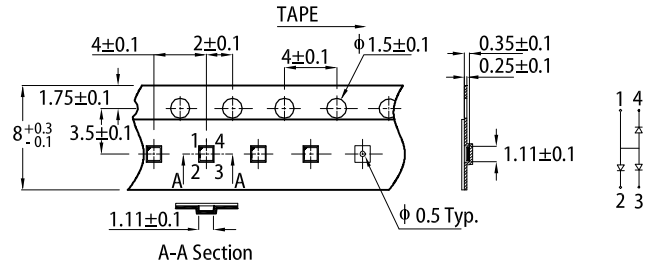
Notes:  
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.  
2. Luminous intensity / luminous flux: +/-15%.  
3. Luminous intensity value is traceable to CIE127-2007 standards.

### REFLOW SOLDERING PROFILE for LEAD-FREE SMD PROCESS

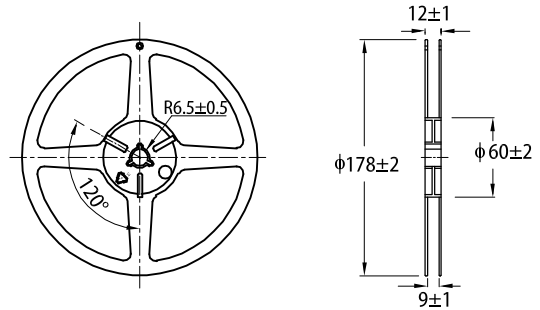


- Notes:
1. Don't cause stress to the LEDs while it is exposed to high temperature.
  2. The maximum number of reflow soldering passes is 2 times.
  3. Reflow soldering is recommended. Other soldering methods are not recommended as they might cause damage to the product.

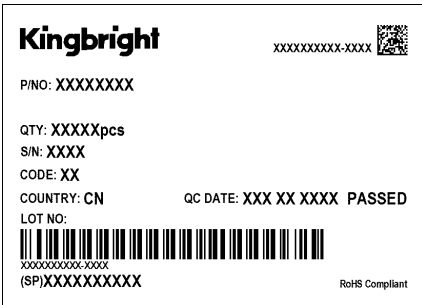
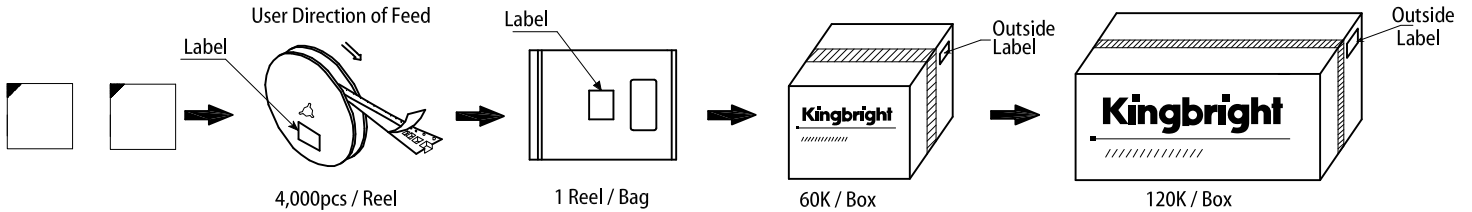
### TAPE SPECIFICATIONS (units : mm)



### REEL DIMENSION (units : mm)



### PACKING & LABEL SPECIFICATIONS



### PRECAUTIONARY NOTES

1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.
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.
3. When using the products referenced in this document, please make sure the product is being operated within the environmental and electrical limits specified in the datasheet. If customer usage exceeds the specified limits, Kingbright will not be responsible for any subsequent issues.
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