

Part Number: KCSC04-123

Green

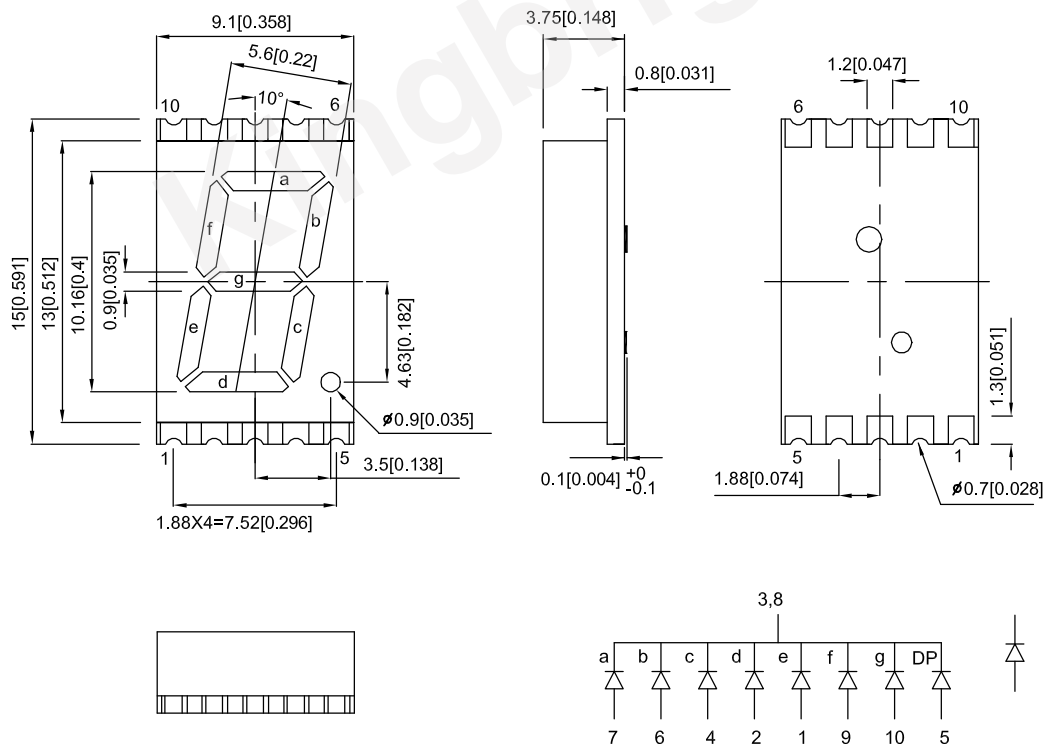
Features

- 0.4 inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Gray face, white segment.
- Package: 400pcs/ reel.
- Moisture sensitivity level : level 2a.
- RoHS compliant.

Description

The Green source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
2. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.



Selection Guide

| Part No. | Emitting Color (Material) | Lens Type | Iv (ucd) [1] @ 10mA | | Description |
|------------|---------------------------|----------------|------------------------|-------|-----------------------------------|
| | | | Min. | Typ. | |
| KCSC04-123 | Green (AlGaInP) | White Diffused | 5600 | 11000 | Common Cathode, Rt. Hand Decimal. |
| | | | *2200 | *4100 | |

Notes:

- Luminous intensity / luminous Flux: +/-15%.
- * Luminous intensity value is traceable to CIE127-2007 standards.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Emitting Color | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------------------------|----------------|------|------|-------|---------------------------|
| λ_{peak} | Peak Wavelength | Green | 574 | | nm | I _F =10mA |
| λ_D [1] | Dominant Wavelength | Green | 570 | | nm | I _F =10mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Green | 20 | | nm | I _F =10mA |
| C | Capacitance | Green | 15 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | Green | 2.0 | 2.5 | V | I _F =10mA |
| I _R | Reverse Current | Green | | 10 | uA | V _R =5V |

Notes:

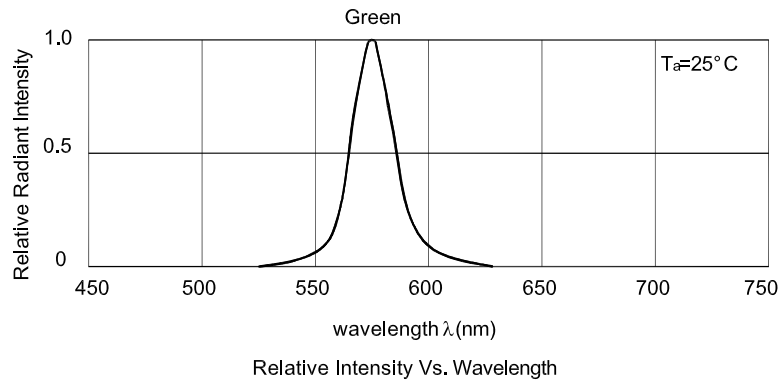
- Wavelength: +/-1nm.
- Forward Voltage: +/-0.1V.
- Wavelength value is traceable to CIE127-2007 standards.
- Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

| Parameter | Values | Units |
|---------------------------------|----------------|-------|
| Power dissipation | 75 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 150 | mA |
| Reverse Voltage | 5 | V |
| Operating / Storage Temperature | -40°C To +85°C | |

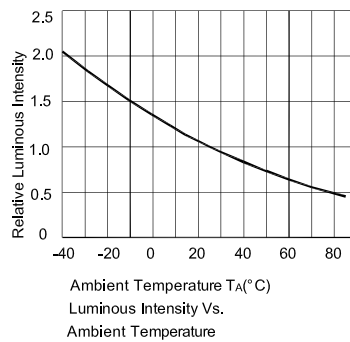
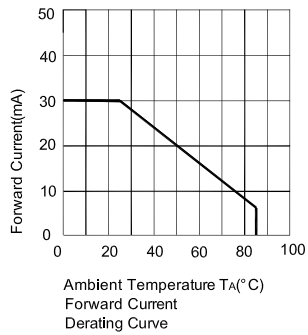
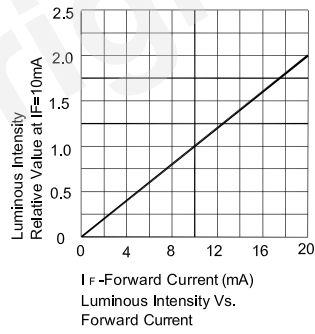
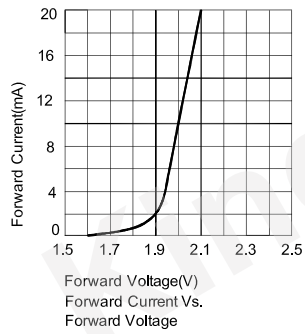
Notes:

- 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.



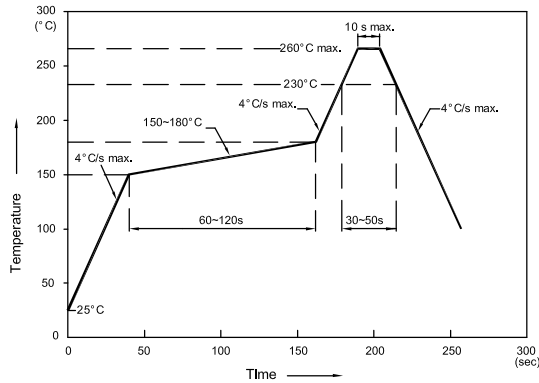
Green

KCSC04-123



KCSC04-123

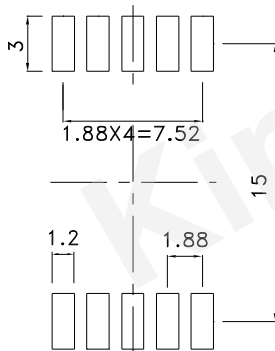
Reflow Soldering Profile For Lead-free SMT Process.



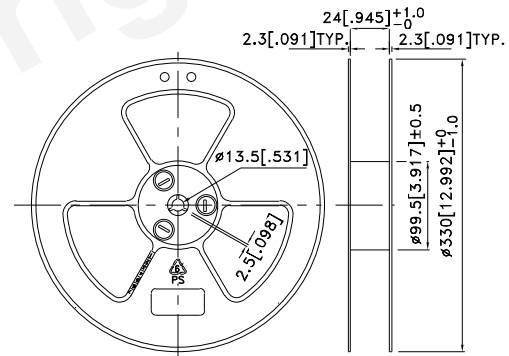
NOTES:

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.

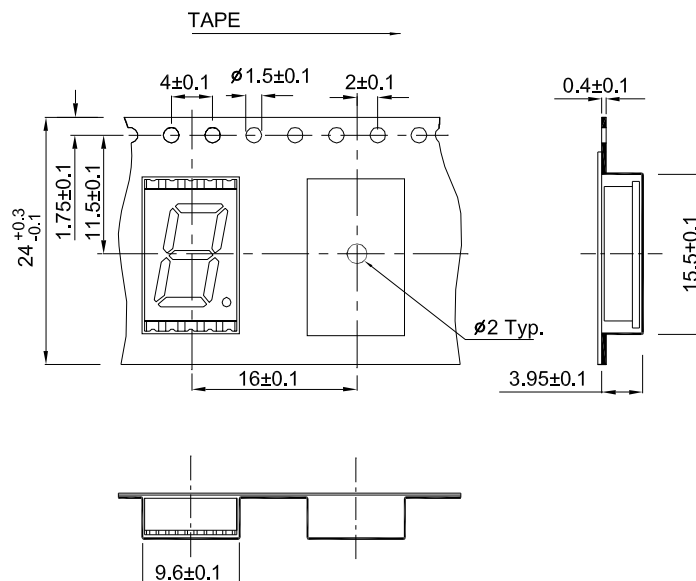
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.15)



Reel Dimension

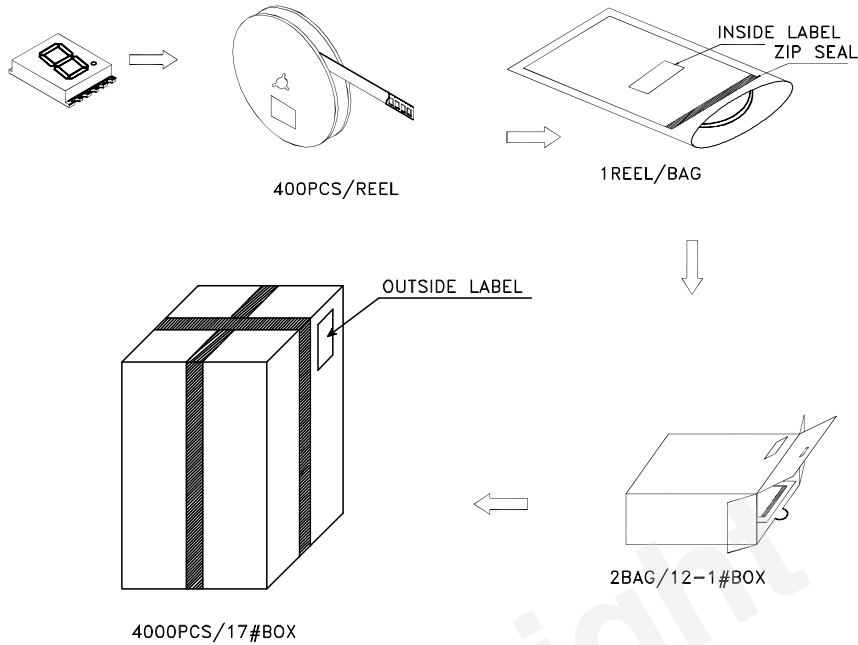


Tape Specifications (Units : mm)

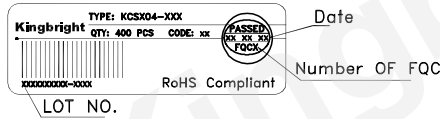


PACKING & LABEL SPECIFICATIONS

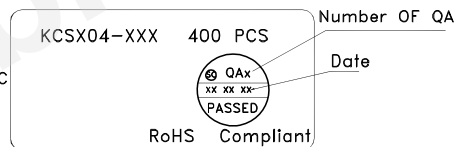
KCSC04-123



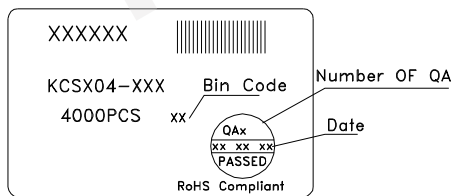
Inside Label On Tape



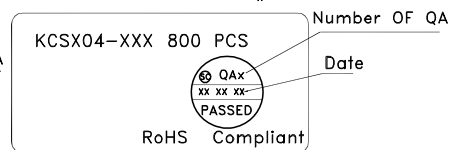
Outside Label On BAG



Outside Label On 17#Box



Outside Label On 12-1#Box



Terms and conditions for the usage of this document

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.
4. The information in this document applies to typical usage in consumer electronics applications. If customer's application has special reliability requirements or have life-threatening liabilities, such as automotive or medical usage, please consult with Kingbright representative for further assistance.
5. The contents and information of this document may not be reproduced or re-transmitted without permission by Kingbright.
6. All design applications should refer to Kingbright application notes available at http://www.kingbright.com/application_notes