## ATTENTION

observe precautions
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

## Features

- Single color.
- Suitable for all SMT assembly and solder process.
- Ideal for backlighting.
- Available on tape and reel.
- Package: 500pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.


## Description

The Green source color devices are made with InGaN on G-SiC 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



$$
1 \circ-\Delta<2
$$



## Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.2(0.008$ ") 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.

## Kingbright

## Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] <br> @ 20mA |  | Viewing <br> Angle [1] |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Min. | Typ. | 201/2 |
| APED3528VGC/A-F01 | Green (InGaN) | WATER CLEAR | 110 | 300 | $40^{\circ}$ |

Notes:

1. $\theta 1 / 2$ 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 ${ }^{\circ} \mathrm{C}$

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\lambda$ peak | Peak Wavelength | Green | 520 |  | nm | $\mathrm{IF}=20 \mathrm{~mA}$ |
| $\lambda \mathrm{D}[1]$ | Dominant Wavelength | Green | 525 |  | nm | $\mathrm{IF}=20 \mathrm{~mA}$ |
| $\Delta \lambda 1 / 2$ | Spectral Line Half-width | Green | 35 |  | nm | $\mathrm{IF}=20 \mathrm{~mA}$ |
| C | Capacitance | Green | 100 |  | pF | $\mathrm{VF}=0 \mathrm{~V} ; \mathrm{f}=1 \mathrm{MHz}$ |
| $\mathrm{VF}[2]$ | Forward Voltage | Green | 3.2 | 4 | V | $\mathrm{IF}=20 \mathrm{~mA}$ |
| IR | Reverse Current | Green |  | 10 | uA | $\mathrm{VR}=5 \mathrm{~V}$ |

Notes:
1.Wavelength: $+/-1 \mathrm{~nm}$.
2. Forward Voltage: $+/-0.1 \mathrm{~V}$.

Absolute Maximum Ratings at $\mathrm{TA}=25^{\circ} \mathrm{C}$

| Parameter | Green | Units |
| :--- | :--- | :---: |
| Power dissipation | 120 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 100 | mA |
| Reverse Voltage | 5 | V |
| Operating Temperature | $-40^{\circ} \mathrm{C} \mathrm{To}+85^{\circ} \mathrm{C}$ |  |
| Storage Temperature | $-40^{\circ} \mathrm{C} \mathrm{To}+85^{\circ} \mathrm{C}$ |  |

Note:

1. $1 / 10$ Duty Cycle, 0.1 ms Pulse Width.

## Kingbright


relative intensity Vs. Wavelength

## Green

## APED3528VGC/A-F01







SPATIAL DISTRIBUTION

## Kingbright

## APED3528VGC/A-F01

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.

$$
\begin{aligned}
& \text { Reflow Soldering Profile For Lead-free SMT Process. } \\
& \text { 2.Don't cause stress to the epoxy resin while it is exposed } \\
& \text { 3. Number of reflow process shall be } 2 \text { times or less. }
\end{aligned}
$$

## Recommended Soldering Pattern

(Units : mm; Tolerance: $\pm 0.1$ )


Tape Dimensions
(Units : mm)


A-A SECTION

## Kingbright

PACKING \& LABEL SPECIFICATIONS
APED3528VGC/A-F01



10K / 56\# Box


Kingbright
$P / \mathbb{N O}:$ APED $3528 \times x \times$


