YETDA INDUSTRY LTD.

## Technical Data Sheet

MODEL NO: 197GBR2-G
0605 Package 1.5*1.6*0.8mm Chip LEDs

## Features:

- Compatible with automatic placement equipment
- Compatible with reflow solder process

Applications :

- Indicators
-Automotive : backlighting in dashboard and switch
- Backlight for LCD

| Dice material | Emitted color | Lens Color |
| :---: | :---: | :---: |
| AlGalnP | Red |  |
| InGaN | Green |  |
| InGaN | Blue |  |

Electrical/Optical Characteristics(Ta=25 ${ }^{\circ} \mathrm{C}$ )

| Parameter | Test <br> Condition | Symbol |  | Value |  |  | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Min | Typ | Max |  |
| Wavelength at peak emission | $\mathrm{If}=20 \mathrm{~mA}$ | $\lambda$ peak | R |  | 630 |  | nm |
|  |  |  | G |  | 520 |  |  |
|  |  |  | B |  | 465 |  |  |
| Spectral half bandwidth | $\mathrm{If}=20 \mathrm{~mA}$ | $\triangle \lambda$ | R |  | 18 |  | nm |
|  |  |  | G |  | 35 |  |  |
|  |  |  | B |  | 25 |  |  |
| Dominant wavelength | $\mathrm{If}=20 \mathrm{~mA}$ | $\lambda$ dom | R | 615 | 620 | 630 | nm |
|  |  |  | G | 520 | 525 | 530 |  |
|  |  |  | B | 465 | 470 | 475 |  |
| Forward voltage | $\mathrm{If}=20 \mathrm{~mA}$ | Vf | R | 1.7 | 2.0 | 2.5 | V |
|  |  |  | G | 2.8 | 3.1 | 3.7 |  |
|  |  |  | B | 2.8 | 3.1 | 3.7 |  |
| Luminous intensity | $\mathrm{If}=20 \mathrm{~mA}$ | Iv | R | 80 | 140 | 250 | mcd |
|  |  |  | G | 250 | 470 | 800 |  |
|  |  |  | B | 40 | 90 | 125 |  |
| Viewing angle at 50\% Iv | $\mathrm{If}=10 \mathrm{~mA}$ | $2 \theta 1 / 2$ |  |  | 140 |  | Deg |
| Reverse current | $\mathrm{Vr}=5 \mathrm{~V}$ | Ir |  |  |  | 10 | $\mu \mathrm{A}$ |

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Absolute Maximum Ratings( $\mathrm{Ta}=25^{\circ} \mathrm{C}$ )

| Parameter | Symbol | Value |  |  | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | R | g | B |  |
| Power dissipation | Pd | 75 | 111 | 111 | mW |
| Forward current | If | 30 |  |  | mA |
| Reverse voltage | Vr | 5 |  |  | V |
| Operating temperature range | Top | $-40 \sim+80$ |  |  | ${ }^{\circ} \mathrm{C}$ |
| Storage temperature range | Tstg | -40~+85 |  |  | ${ }^{\circ} \mathrm{C}$ |
| Peak pulsing current ( $1 / 8$ duty $\mathrm{f}=1 \mathrm{kHz}$ ) | Ifp | 125 |  |  | mA |

## PACKAGING DIMENSIONS



Unit:mm

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Fig 3. Forward Voltage vs. Temperature



Fig 4. Relative Intensity vs. Temperature


Fig 5. Relative Intensity vs. Wavelength


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Fig 1. Forward Current vs. Forward Voltage


Fig 3. Forward Voltage vs. Temperature


Fig 5.Relative Intensity vs. Wavelength


Wavelength [ nm ]

Fig 2. Relative Intensity vs. Forward Current


Fig 4. Relative Intensity vs. Temperature


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Fig 1. Forward Current vs. Forward Voltage


Fig 3. Forward Voltage vs. Temperature


Fig 5.Relative Intensity vs. Wavelength


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Fig 2. Relativo Intonsity vs. Forward Current


Fig 4. Relative Intensity vs. Temperature


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## PACKAGING SPECIFICATIONS

| Feeding Direction | Dimensions of Reel (Unit: mm) |
| :--- | :--- |

## Dimensions of Tape (Unit: mm)




| NOTES |
| :--- |
| 1. Empty component pockets are sealed with top cover tape; |
| 2. The maximum number of missing lamps is two; |
| 3. The polarity mark is oriented towards the tape sprocket hole ; |
| 4. 4,000pcs/Reel. |

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## PACKAGING SPECIFICATIONS

Packaging specifications

## NOTES:

Reeled products (numbers of products are 4,000pcs) packed in a seal off moisture-proof bag along with a desiccant one by one, Seven moisture-proof bag of maximums (total maximum number of products are $28,000 \mathrm{pcs}$ ) packed in an inside box (size: about $283 \mathrm{~mm} \times$ about 194mm $\times$ about 102mm and four inside boxes of maximums are put in the outside box (size: about 410mm x about $254 \mathrm{~mm} \times$ about 229 mm ) Together with buffer material, and it is packed. (Part No., Lot No., quantity should appear on the label on the moisture-proof bag, part No. And quantity should appear on the label on the cardboard box.) The number of the loading steps of outside box (cardboard box) has it to three steps.

