



深圳成光兴光电技术股份有限公司

SHENZHEN CGX OPTOELECTRONIC TECHNOLOGY INC..

# 样品规格承认书

## SAMPLE APPROVAL SHEET

客户名称

Company Name : \_\_\_\_\_

产品型号

Part Number: CIL-5034X2C-N2A6

送样日期

Sample Date: \_\_\_\_\_

| APPROVED SIGNATURES (供应商确认) |    |    |
|-----------------------------|----|----|
| 核准                          | 品保 | 工程 |
|                             |    |    |

客户确认：☐样品承认 ☐不予承认需重新送样 ☐不予承认不需送样

客户建议: \_\_\_\_\_

| APPROVED SIGNATURES (客户确认) |    |    |
|----------------------------|----|----|
| 核准                         | 工程 | 品保 |
|                            |    |    |

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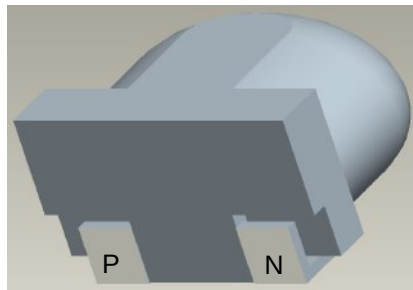


## INFRARED EMITTING DIODE

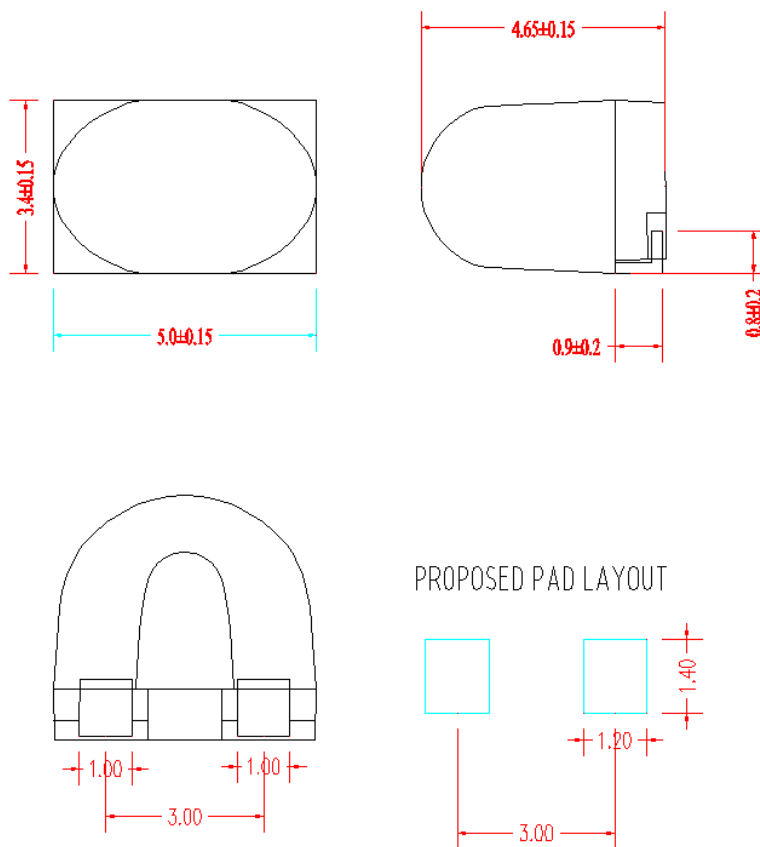
PART NO. : CIL-5034X2C-N2A6

### Features

- High radiant power and high radiant intensity
- Suitable for DC and high pulse current operation
- SMD package, radiation angle:  $60^\circ$
- Peak wavelength  $\lambda_p = 940 \text{ nm}$
- Good spectral matching to si-photodetector



### Package Dimensions

 Unit: mm

### Note

- All dimensions are in millimeters
- Tolerance is  $\pm 0.3 \text{ mm}$  unless otherwise noted.

| Lens        | Chip Material |
|-------------|---------------|
| Water clear | GaAs /AlGaAs  |



## INFRARED EMITTING DIODE

PART NO. : CIL-5034X2C-N2A6

### Absolute Maximum Ratings at $T_A=25^{\circ}\text{C}$

| Parameter                                                    | Maximum Rating                                  | Unit |
|--------------------------------------------------------------|-------------------------------------------------|------|
| Power Dissipation                                            | 100                                             | mW   |
| Peak Forward Current<br>(1/10 Duty Cycle, 0.1ms Pulse Width) | 1.0                                             | A    |
| Continuous Forward Current                                   | 100                                             | mA   |
| Reverse Voltage                                              | 5                                               | V    |
| Operating Temperature Range                                  | $-25^{\circ}\text{C}$ to $+85^{\circ}\text{C}$  |      |
| Storage Temperature Range                                    | $-40^{\circ}\text{C}$ to $+100^{\circ}\text{C}$ |      |
| Reflow Soldering Temperature Max                             | $260^{\circ}\text{C}$ for $\leq 10$ seconds.    |      |

### Optical-Electrical Characteristics at $T_A=25^{\circ}\text{C}$

| Parameter          | Test Conditions    | Symbol          | Min.  | Typ . | Max.  | Unit          |
|--------------------|--------------------|-----------------|-------|-------|-------|---------------|
| Radiant Intensity  | $I_F=20\text{mA}$  | $I_e$           | 16    | 24    | ----- | mW/sr         |
|                    | $I_F=300\text{mA}$ | $I_e$           | 220   | 330   | ----- | mW/sr         |
| Forward Voltage    | $I_F=50\text{mA}$  | $V_F$           | ----- | 1.35  | 1.6   | V             |
|                    | $I_F=100\text{mA}$ | $V_F$           | ----- | 1.45  | 1.9   | V             |
| Reverse Current    | $V_R=5\text{V}$    | $I_R$           | ----- | ----- | 100   | $\mu\text{A}$ |
| Peak Wavelength    | $I_F=100\text{mA}$ | $\lambda_p$     | ----- | 945   | ----- | nm            |
| Spectral Bandwidth | $I_F=20\text{mA}$  | $\Delta\lambda$ | ----- | 50    | ----- | nm            |
| View Angle         | $I_F=20\text{mA}$  | $2\theta_{1/2}$ | ----- | 60    | ----- | deg .         |



## Typical Optical-Electrical Characteristic Curves

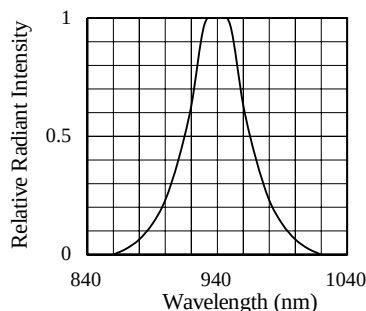


FIG.1 SPECTRAL DISTRIBUTION

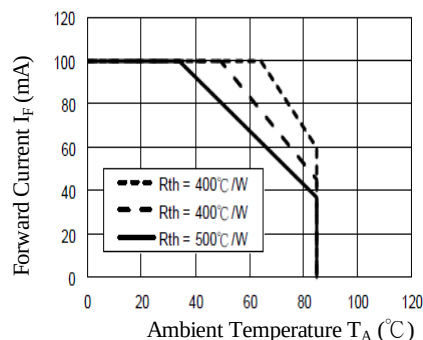


FIG.2 : Maximum Driving Forward DC Current vs. Ambient Temperature (Derating based on  $T_J \text{ max} = 110^\circ\text{C}$ )

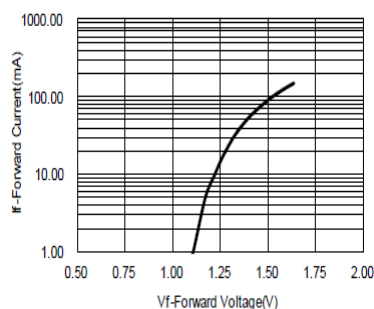


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

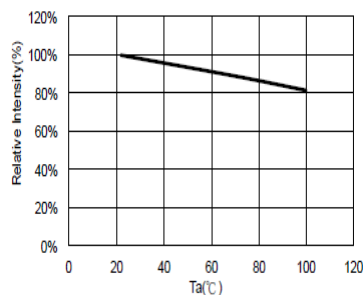


FIG.4-Relative Intensity (@100mA) vs. Ambient Temperature

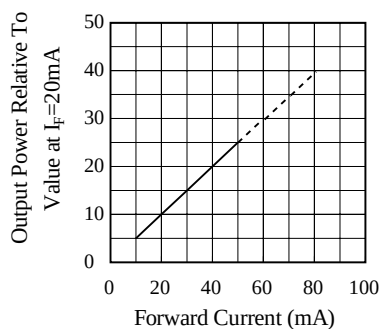


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

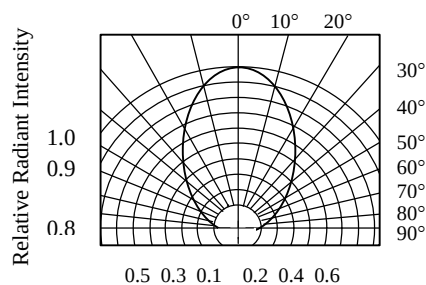


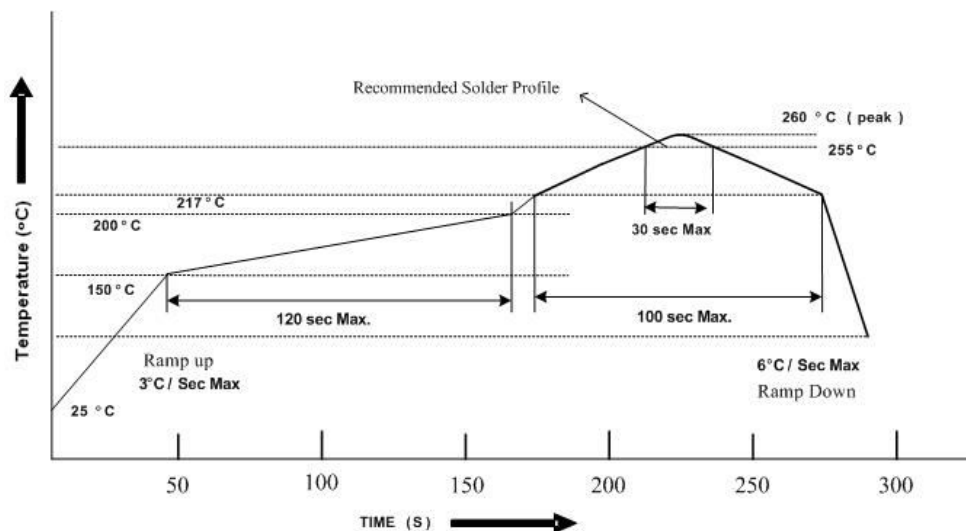
FIG.6 RADIATION DIAGRAM

## INFRARED EMITTING DIODE

PART NO. : CIL-5034X2C-N2A6

### Soldering Condition

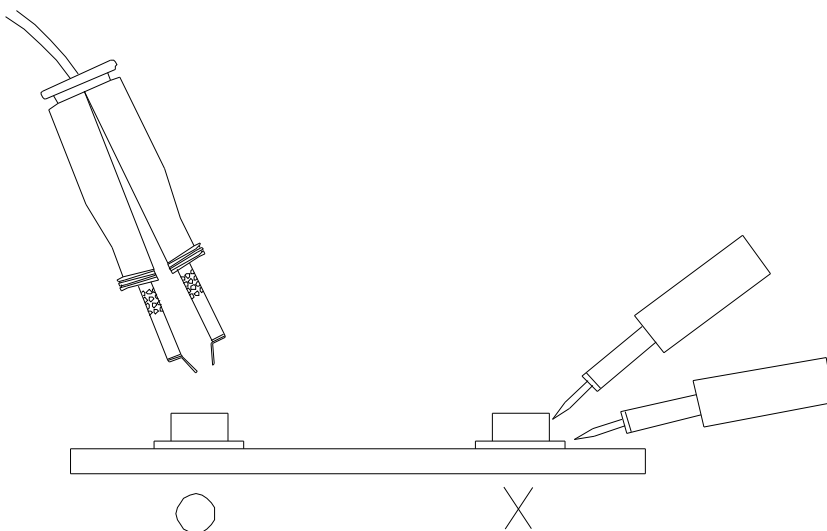
#### 1. Pb-free solder temperature profile



2. Reflow soldering should not be done more than two times.
3. When soldering, do not put stress on the LEDs during heating.
4. After soldering, do not warp the circuit board.

### Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.



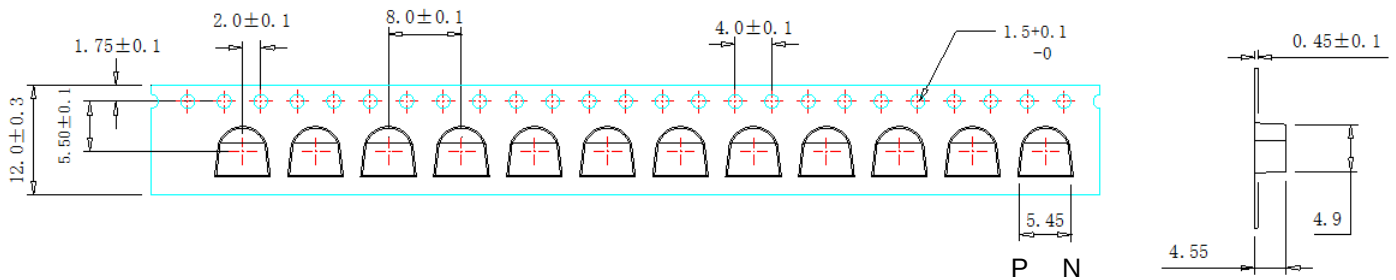
## INFRARED EMITTING DIODE

PART NO. : CIL-5034X2C-N2A6

### Package Dimensions

Carrier Tape Dimensions:

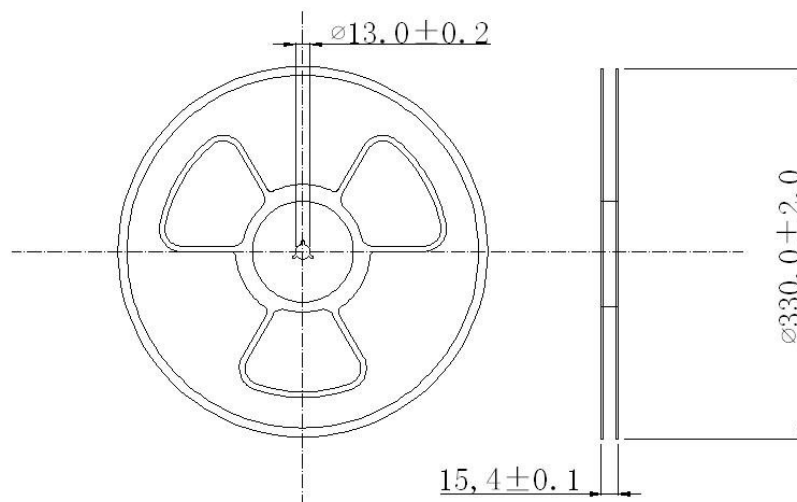
Loaded quantity 2000 PCS per reel.



Note: 1. Dimensions are in millimeters

2. The tolerances unless mentioned is  $\pm 0.1\text{mm}$

### Package Dimensions



### Moisture Resistant Packaging

