



# Infrared Emitting Diode Technical Data Sheet

## ■ Features

- Package type: leaded
- High reliability
- High radiant intensity
- Low forward voltage



## ■ Application

- Infrared remote control units with high power requirements
- Free air transmission systems
- Infrared source for optical counters and card readers
- IR source for smoke detectors
- Smoke-automatic fire detectors

## ■ Product Summary

Part No.	Chip Material	Lens color
GHE03C-	AlGaInP	Water clear



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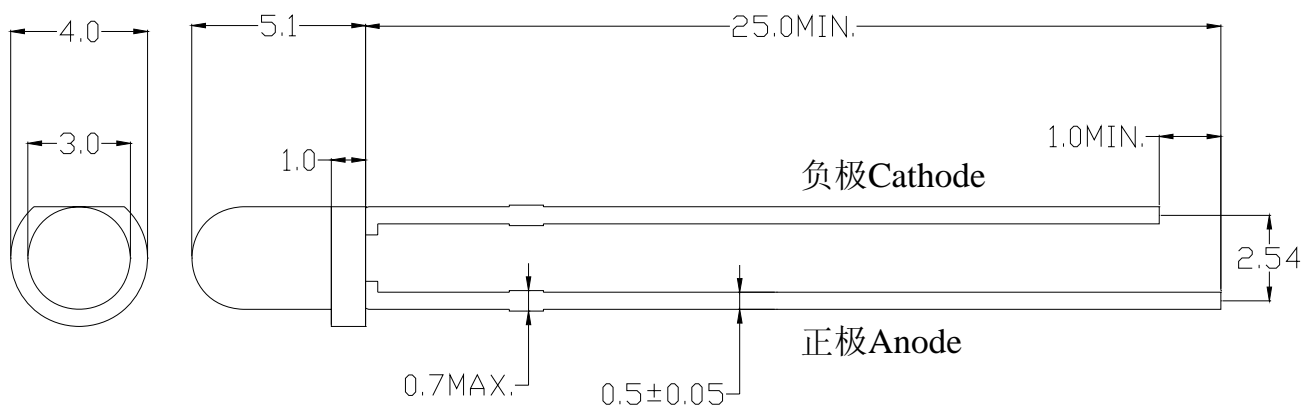




## ●Package Dimension

Notes:

1. All dimensions are in millimeters
2. Tolerance is  $\pm 0.2\text{mm}$  unless otherwise noted.



## ●GHE03C- Series Specifications:





Product	Dimension	Lense color	fP (nm)	Spectrum Half Width(nm)	View Angle	Ie_Typ (mW/sr)
GHE03C-3A (002) A00	3mm round	Water clear	940nm	45	40	5-10
GHE03C-3A (002) B01	3mm round	Water clear	940nm	45	40	5-7.5
25GHE03C-3A(221)	3mm round	Water clear	940nm	40	30	20-
GHE03C-3A (056) A00	3mm round	Water clear	940nm	40	30	5-10
25GHE03C-3A (298)	3mm round	Water clear	940nm	50	45	10-13
GHE03C-3A (846)	3mm round	Water clear	940nm	40	30	5-7.5
GHE03C-3B (002) A00	3mm round	Water clear	940nm	40	30	15-20
GHE03CD-3A (002)	3mm round	Water clear	940nm	50	30	4-6
GHE03C(JQ056)	3mm round	Water clear	940nm	50	35	4-8

### ● Typical Electrical/Optical Characteristics Curves:

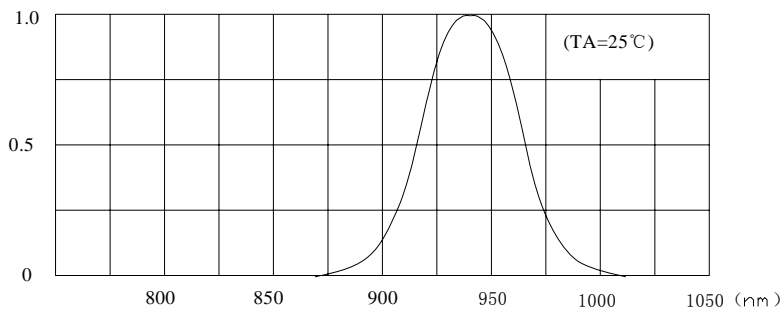


图1 波长相对强度图

Fig.1 Relative Intensity vs. Wavelength



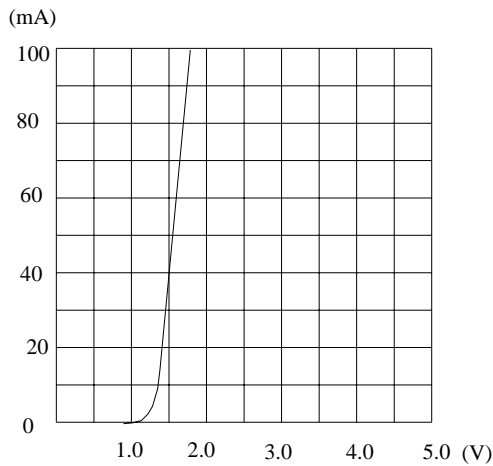


Fig.3 Forward Current vs. Forward Voltage

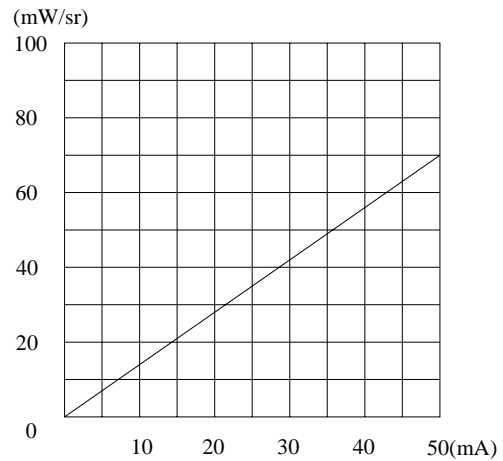


Fig.4 Relative Luminous Intensity vs. Forward Current

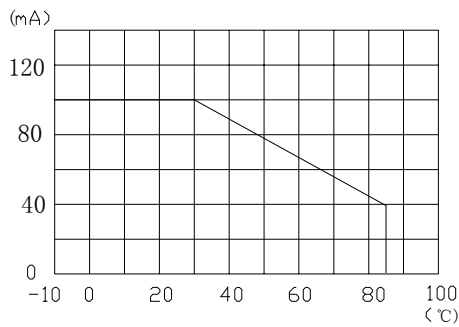


Fig.4 Forward Current vs. Ambient Temperature

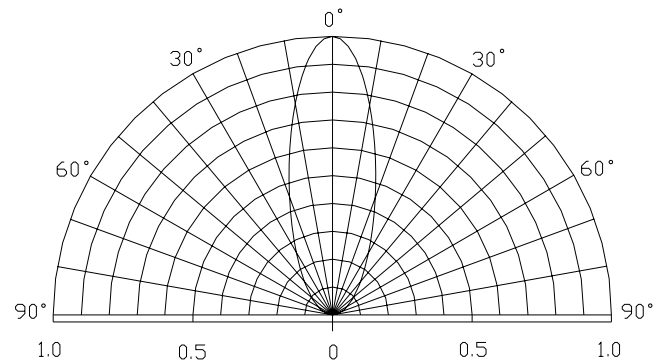


Fig.5 Spatial Distribution

## Please read the following notes before using the product:

### 1. Over-current-proof

Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen).

### 2.Storage

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package, the LEDs should be kept at 30°C or less and 90%RH or less.

2.3 The LEDs should be used within a year.

2.4 After opening the package, the LEDs should be kept at 30°C or less and 70%RH or less.

2.5 The LEDs should be used within 168 hours (7 days) after opening the package.

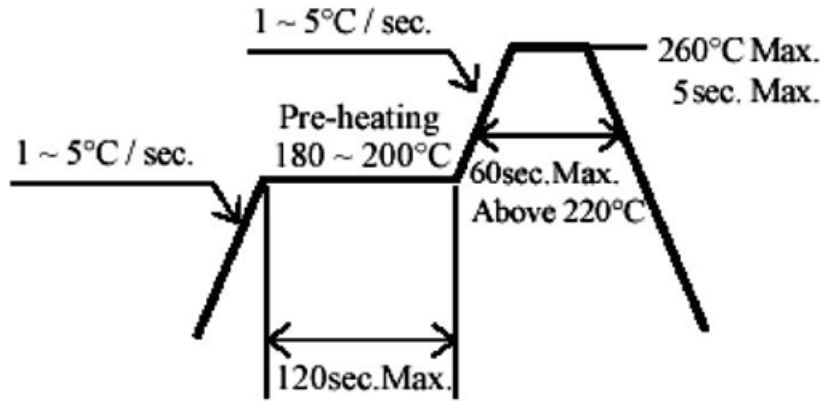




2.6 If the moisture adsorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions. Baking treatment:  $60\pm 5^{\circ}\text{C}$  for 24 hours.

### 3. Soldering Condition

3.1 Pb-free solder temperature profile.



3.2 Reflow soldering should not be done more than two times.

3.3 When soldering, do not put stress on the LEDs during heating.

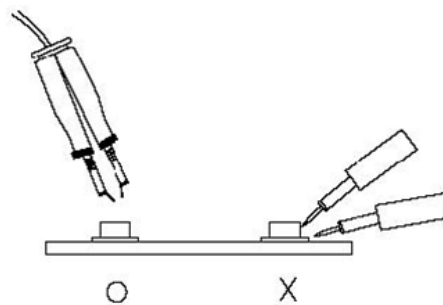
3.4 After soldering, do not warp the circuit board.

### 4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than  $260^{\circ}\text{C}$  for 5 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

### 5. 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.



### 6. Caution in ESD





Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

