



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
GHE05C-	AlGaInP	Water clear



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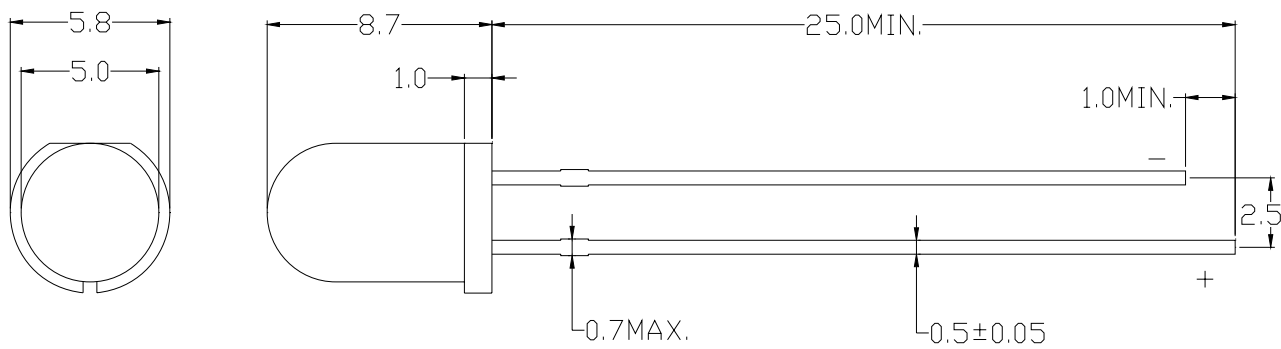




●Package Dimension

Notes:

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



●GHE05C- Series Specifications:

Product	Dimension	Lense color	fP (nm)	Spectrum Half Width(nm)	View Angle	Ie_Typ (mW/sr)
GHE05C-2F1	5mm round	Water clear	735nm	50	20	70
GHE05C-2A(846)	5mm round	Water clear	850nm	50	26	42-50
GHE05C-2M	5mm round	Water clear	940nm	50	10	8-14
GHE05C-3(010)	5mm round	Water clear	940nm	50	15	45-70
GHE05C-4B	5mm round	Water clear	940nm	50	15	15-25
GHE05CD-5B (527-1)	5mm round	Water clear	940nm	50	20	25-40
GHE05C-5F	5mm round	Water clear	940nm	50	20	25-45
GHE05C-5E (527-1)	5mm round	Water clear	940nm	50	20	80-100





GHE05C-2K	5mm round	Water clear	940nm	100	15	10
GHE05C	5mm round	Water clear	940nm	50	30	15-24
GHE05C(010)	5mm round	Water clear	940nm	50	30	25-40
GHE05C-1A(002)	5mm round	Water clear	940nm	50	30	4-6
GHE05C-1F(807)	5mm round	Water clear	940nm	50	30	20-30
GHE05C-1F(YL863)	5mm round	Water clear	940nm	50	30	25-45
GHE05C-1G(074)	5mm round	Water clear	940nm	50	35	6-8
GHE05C-1B(074)	5mm round	Water clear	940nm	50	10	40-60
GHE05C-1F3 (500)	5mm round	Water clear	940nm	50	20	25-40
GHE05C-1H(YL863)	5mm round	Water clear	940nm	50	20	45-60
GHE05C-1G	5mm round	Water clear	940nm	50	25	60-70
GHE05C-1I	5mm round	Water clear	940nm	50	30	70-80
GHE05C-1F (45mW)	5mm round	Water clear	940nm	50	40	45-50
GHE05C-1F	5mm round	Water clear	940nm	50	40	25-35
GHE05C-1B(JQ527-1)	5mm round	Water clear	940nm	50	45	7-10
GHE05C-1H	5mm round	Water clear	940nm	50	8	100-120
GHE05C-3(500)	5mm round	Water clear	935nm	50	20	35-45

● **Typical Electrical/Optical Characteristics Curves:**



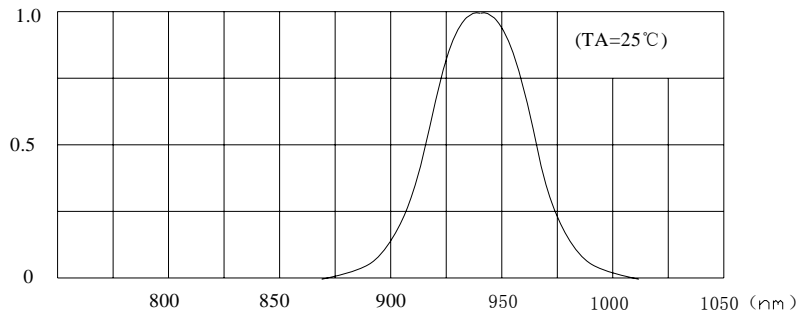


图1 波长相对强度图

Fig.1 Relative Intensity vs. Wavelength

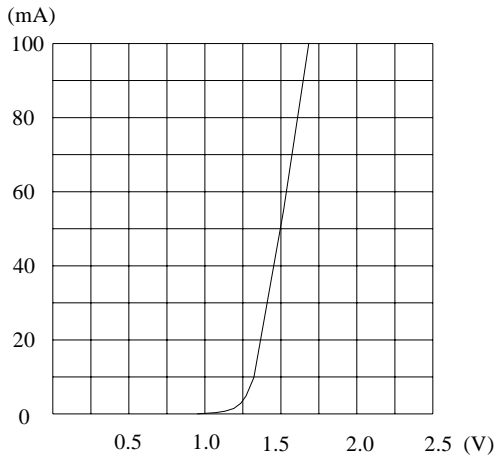


Fig.2 Forward Current vs. Forward Voltage

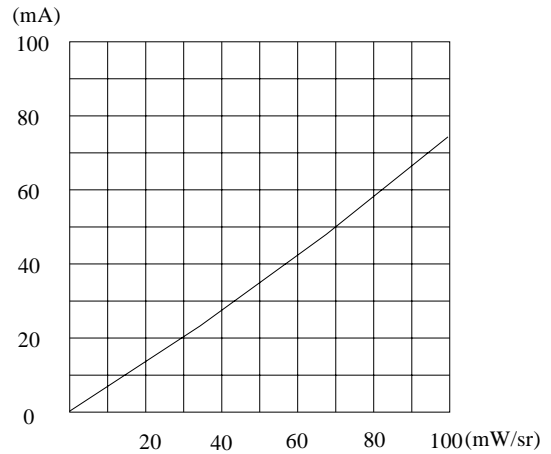


Fig.3 Relative Luminous Intensity vs. Forward Current

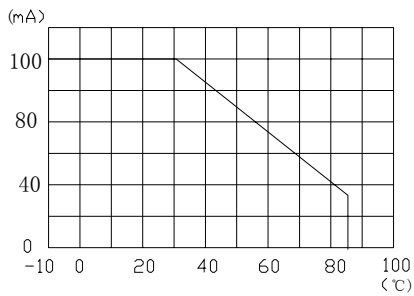


Fig.4 Ambient Temperature Vs. Forward Current

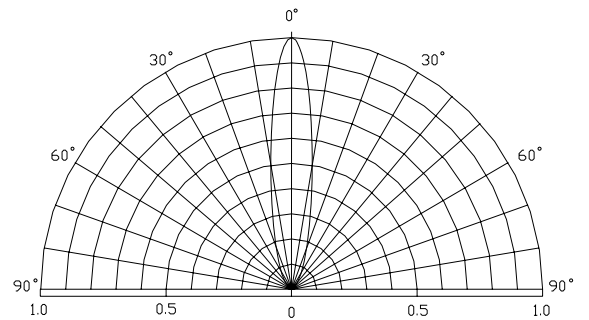


Fig.5 Spatial Distribution





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.

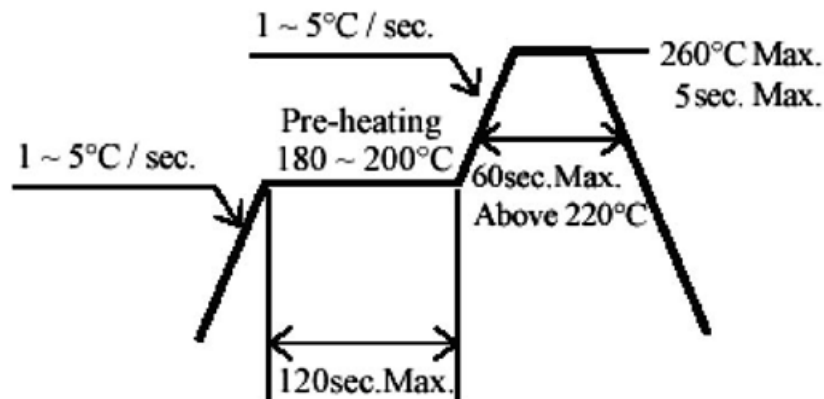
2.4 After opening the package, the LEDs should be kept at 30°C or less and 70%RH or less.

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 fabled away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions. Baking treatment: 60±5°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°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.

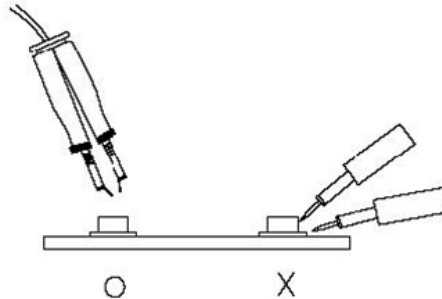
5. Repairing

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.

