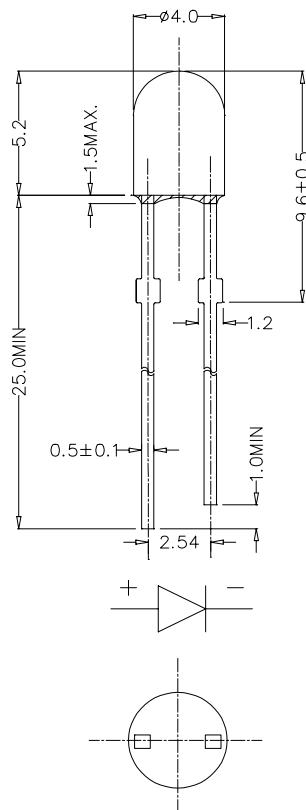




COTCO LUMINANT DEVICE (HUIZHOU) LTD

**Part #: LC461MHR4-95G**

Product Description: Red 95° 5mm LED lamp with tinted diffused lens and stand offs.

**Resin:** Epoxy**Lens Color:** Tinted Diffused**Lead Frame:** Ag Plating Copper Alloy**Dice:** AlGaInP**DIMENSION DRAWING**

NOTES: 1. ALL DIMENSIONS ARE IN mm TOLERANCE IS  $\pm 0.25$  mm  
UNLESS OTHERWISE NOTED.

2. AN EPOXY MENISCUS MAY EXTEND ABOUT 1.5 mm  
DOWN THE LEADS.

3. BURR AROUND BOTTOM OF EPOXY MAY BE 0.5 mm MAX.

COTCO-D-074 REV.0

**Delivery Information Contact:**

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**Marktech Optoelectronics\***

120 Broadway, Menands, NY 12204

Phone: 800.984.5337 FAX: 518.432.7454

Web Site: [www.marktechopto.com](http://www.marktechopto.com)

\*Marktech is the exclusive North American Technical Sales and Marketing office for COTCO LED products

## SPECIFICATION

Absolute Maximum Rating (T<sub>a</sub> = 25°C)

| Items                                                     | Symbol           | Absolute maximum Rating                                 | Unit |
|-----------------------------------------------------------|------------------|---------------------------------------------------------|------|
| Forward Current                                           | I <sub>F</sub>   | 50                                                      | mA   |
| Peak Forward Current<br>pulse width ≤ 0.1msec duty ≤ 1/10 | I <sub>FP</sub>  | 200                                                     | mA   |
| Reverse Voltage                                           | V <sub>R</sub>   | 5                                                       | V    |
| Power Dissipation                                         | P <sub>D</sub>   | 150                                                     | mW   |
| Operation Temperature                                     | T <sub>opr</sub> | -40 ~ + 95                                              | °C   |
| Storage Temperature                                       | T <sub>stg</sub> | -40 ~ +100                                              | °C   |
| Lead Soldering Temperature                                | T <sub>sol</sub> | 260°C for 5sec<br>(3mm from the base of the epoxy bulb) |      |

Initial Electrical/Optical Characteristics (T<sub>a</sub> = 25°C)

| Items              | Symbol         | Condition             | Min. | Typ. | Max. | Unit |
|--------------------|----------------|-----------------------|------|------|------|------|
| Forward Voltage    | V <sub>F</sub> | I <sub>F</sub> = 20mA | 1.7  | 2.0  | 2.5  | V    |
| Reverse Current    | I <sub>R</sub> | V <sub>R</sub> = 5V   | ---  | ---  | 100  | μ A  |
| Wavelength         | λ <sub>D</sub> | I <sub>F</sub> = 20mA | 620  | 624  | 628  | nm   |
| Luminous Intensity | I <sub>V</sub> | I <sub>F</sub> = 20mA | 102  | 200  | ---  | mcd  |
| 50% Power Angle    | 2 θ ½          | I <sub>F</sub> = 20mA | ---  | 95   | ---  | deg  |

Luminous Intensity Combination

| Rank                                         | L           | M           | N           |
|----------------------------------------------|-------------|-------------|-------------|
| Luminous Intensity<br>(I <sub>F</sub> =20mA) | 102-145 mcd | 145-200 mcd | 200-280 mcd |

\*One normal delivery will include all ranks listed above.

The quantity ratio of the ranks is decided by COTCO.

Upper and lower tolerance limit of the Luminous flux ±15%

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## GRAPHS

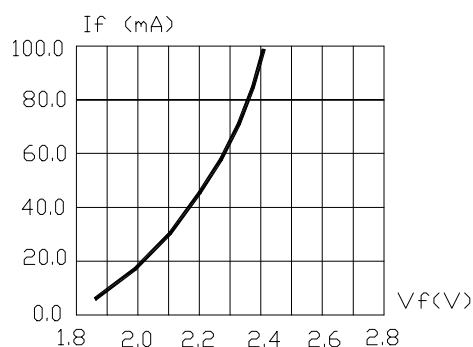


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

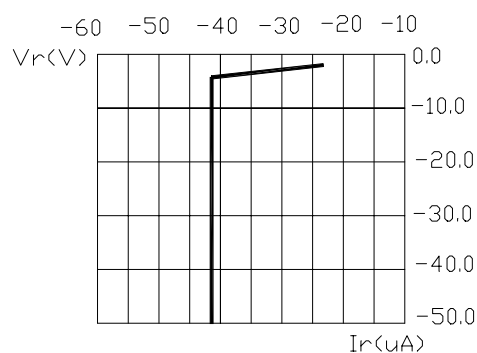


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

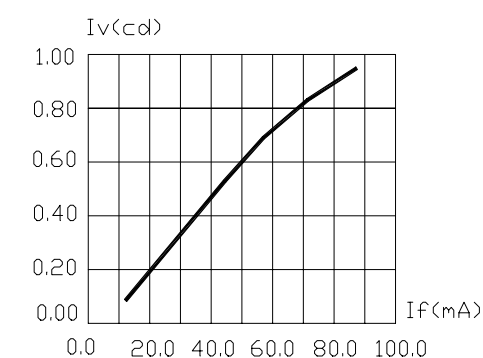


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

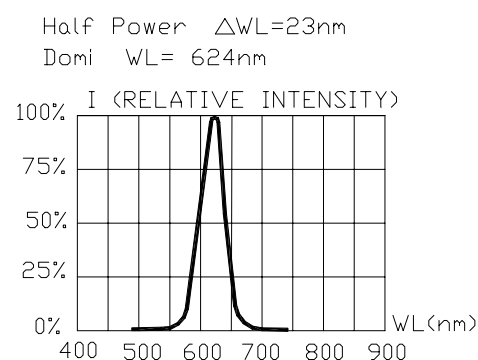


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

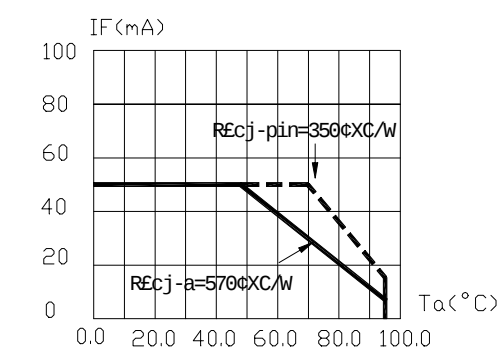
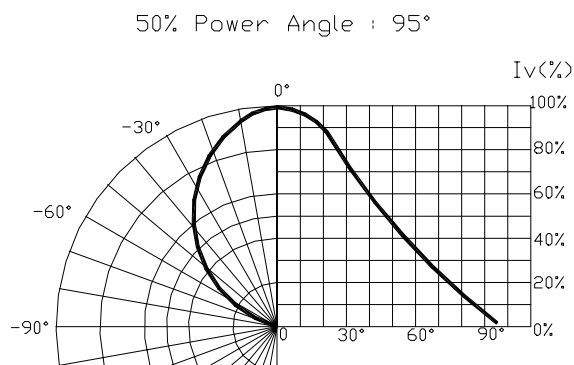
FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON  $T_{jmax}=105^{\circ}\text{C}$ 

FIG.6 SPATIAL DISTRIBUTION.

- 1.Cathode PAD Area ( $0.18 \times 0.18\text{inch}^2$ )
- 2.Height above nominal seating plane in inches(0.3inch)

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