



# LT9C13-89-URC2

# 5.0MM ROUND LAMP

## Features

- \* LOW CURRENT REQUIREMENTS
- \* HIGH LIGHT OUTPUT
- \* RELIABLE AND RUGGED
- \* IC COMPATIBLE

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

|   |                  |
|---|------------------|
| REVERSE VOLTAGE (<math> < 100 \mu\text{A}</math>)   | 4.0V             |
| D.C. FORWARD CURRENT                                | 30mA             |
| PULSE CURRENT (1/10 DUTY CYCLE, 0.1 ms PULSE WIDTH) | 100 mA           |
| OPERATING TEMPERATURE RANGE                         | -25°C TO +85°C   |
| STORAGE TEMPERATURE RANGE                           | -25°C TO +100°C  |
| LEAD SOLDERING TEMP. (1.6mm FROM BODY)              | 260°C FOR 5 SEC. |

## Electrical/optical characteristics at $T_A=25^\circ\text{C}$

| PART NUMBER    | LED CHIP |                | LENS COLOR | WAVELENGTH TYP.<br>$I_f @ 20\text{mA}$ (nm) |             | FORWARD VOLTAGE @20mA(V) |      | LUMINOUS INTENSITY @20mA(mcd) |      | VIEW ANGLE<br>$2 \theta_{1/2}$ (deg) |
|----------------|----------|----------------|------------|---|-------------|--------------------------|------|-------------------------------|------|--------------------------------------|
|                | MATERIAL | EMITTING COLOR |            | $\lambda_p$                                 | $\lambda_d$ | TYP.                     | MAX. | MIN.                          | TYP. |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
| LT9C13-89-URC2 | AlGaInP  | SUPER RED      | W.C.       | $639 \pm 5$                                 | $630 \pm 5$ | 2.1                      | 2.4  | 1100                          | 1900 | 15                                   |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |
|                |          |                |            |   |             |                          |      |                               |      |                                      |

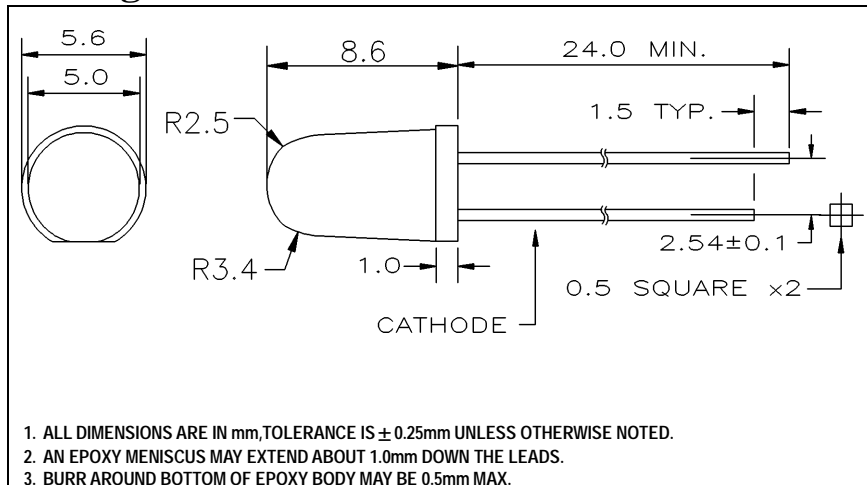
(1) LENS COLOR

W.C....WATER CLEAR

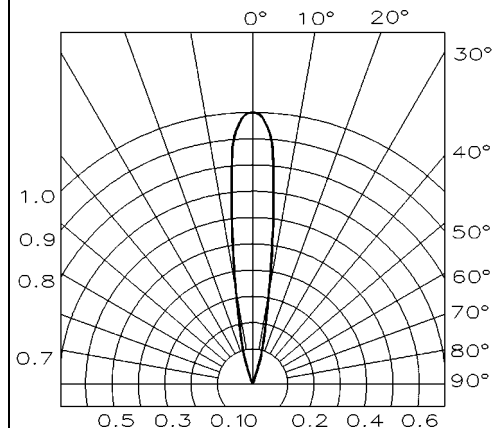
(2) SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

(3) ALL ABOVE COMPONENTS ARE CONSIDERED . DEVIATIONS FROM STATED SPECIFICATIONS WILL REQUIRE A NEW PART NUMBER BE ASSIGNED .

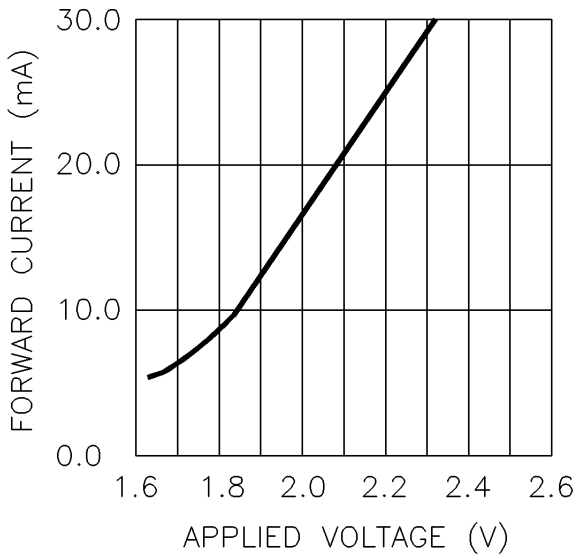
## Package Dimensions



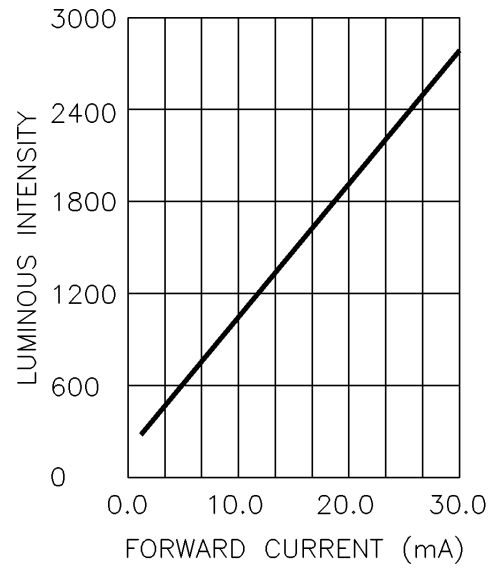
## Radiation Pattern



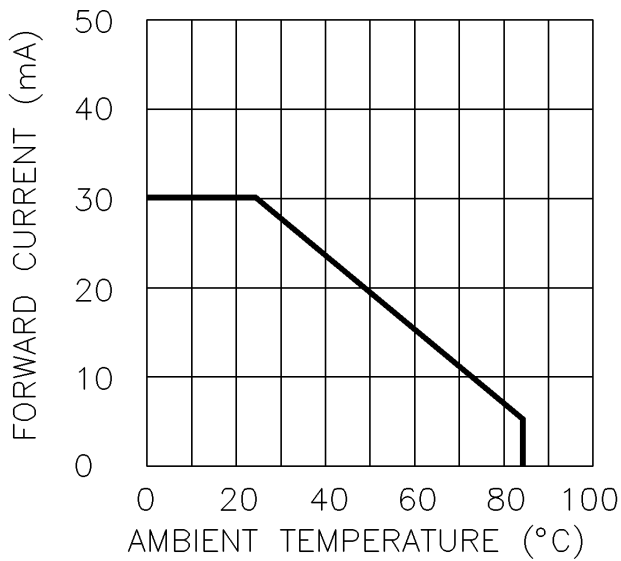
**Forward Current vs. Applied Voltage**



**Luminous Intensity vs. Forward Current**



**Forward Current vs. Ambient Temperature**



**Relative Intensity vs. Wavelength**

