

## FEATURES

- LOW POWER CONSUMPTION.
- HIGH EFFICIENCY.
- VERSATILE MOUNTING ON P.C. BOARD OR PANEL.
- CMOS/MOS AND TTL COMPATIBLE.
- LONG LIFE-SOLID STATE RELIABILITY.
- WIDE VIEWING.
- LOW COST.

## DESCRIPTION

The Red source color devices are made with Gallium Arsenide Phosphide Red Light Emitting Diode.

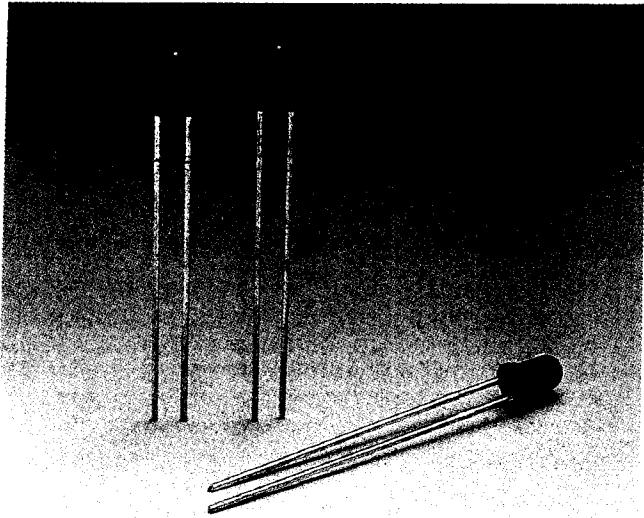
The Bright Red source color devices are made with Gallium Phosphide on Gallium Phosphide Red Light Emitting Diode.

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode. The Green source color devices are made with Gallium Phosphide on Gallium Phosphide Green Light Emitting Diode.

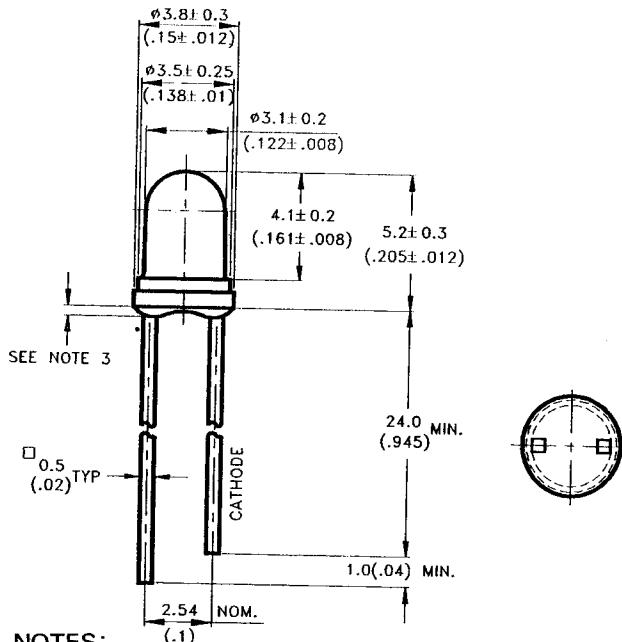
The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

## DEVICES

| PART NO.<br>LTL | LENS   |                         | SOURCE COLOR |
|-----------------|--------|-------------------------|--------------|
|                 | COLOR  | DIFFUSION               |              |
| 16KR<br>16KRE   | Red    | Diffused<br>Transparent | Red          |
| 16KP<br>16KPE   | Red    | Diffused<br>Transparent | Bright Red   |
| 16KE<br>16KEE   | Red    | Diffused<br>Transparent | Hi. Eff. Red |
| 16KG<br>16KGE   | Green  | Diffused<br>Transparent | Green        |
| 16KY<br>16KYE   | Yellow | Diffused<br>Transparent | Yellow       |



## PACKAGE DIMENSIONS



### NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  (.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm (.04") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.

# ABSOLUTE MAXIMUM RATINGS AT TA = 25 °C

| PARAMETER  | RED | BRIGHT RED | GREEN | YELLOW               | HI. EFF. RED ORANGE | UNIT  |
|--|-----|------------|-------|----------------------|---------------------|-------|
| Power-Dissipation  | 80  | 40         | 100   | 60                   | 100                 | mW    |
| Peak Forward Current<br>(1/10 Duty Cycle, 0.1ms Pulse Width) | 200 | 60         | 120   | 80                   | 120                 | mA    |
| Continuous Forward Current                                   | 40  | 15         | 30    | 20                   | 30                  | mA    |
| Derating Linear From 50 °C                                   | 0.5 | 0.2        | 0.4   | 0.25                 | 0.4                 | mA/°C |
| Reverse Voltage  | 5   | 5          | 5     | 5                    | 5                   | V     |
| Operating Temperature Range                                  |     |            |       | -55 °C to +100 °C    |                     |       |
| Storage Temperature Range                                    |     |            |       | -55 °C to +100 °C    |                     |       |
| Lead Soldering Temperature<br>(1.6mm (0.063in) From Body)    |     |            |       | 260 °C for 5 Seconds |                     |       |

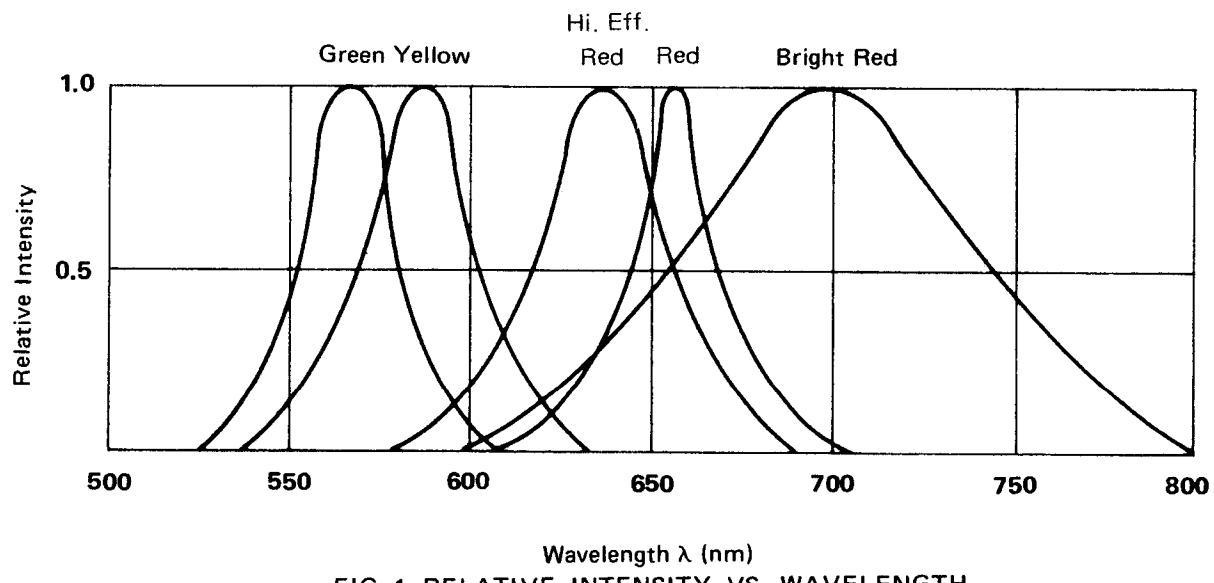


FIG. 1 RELATIVE INTENSITY VS. WAVELENGTH

LED  
LAMPS