

Feature

- § Low Power Consumption
- § High Intensity
- § I.C. compatible

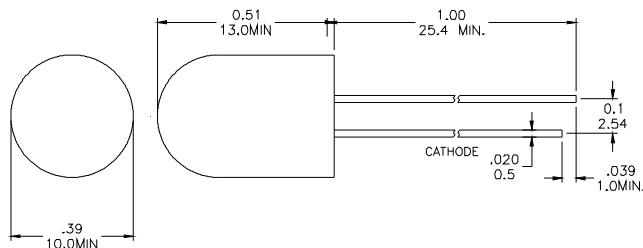
Applications

- § Commercial Outdoor Sign Board
- § Front Panel Indicator
- § Dot-Matrix Module
- § LED Bulb

Description

- § These High Intensity LEDs are Based on InGaN/Sapphire Material Technology
- § Emitted color:White
- § Water Transparent Lens

Package Dimension



* Tolerance : $\pm \frac{0.01}{0.25}$ Unit : $\pm \frac{\text{inch}}{\text{mm}}$

Absolute Maximum Ratings at Ta=25°C

| Symbol | Parameter | Max. | Unit |
|---|---------------------------------------|--------------|-------|
| PD | Power Dissipation | 150 | mW |
| VR | Reverse Voltage | 5 | V |
| IAF | Average Forward Current | 30 | mA |
| IPF | Peak Forward Current (Duty=0.1, 1kHz) | 100 | mA |
| — | Derating Linear Form 25°C | 0.4 | mA/°C |
| Topr | Operating Temperature Range | -40 to + 80 | °C |
| Tstg | Storage Temperature Range | -40 to + 100 | °C |
| Lead Soldering Temperature [1.6mm (0.063inch) From Body] 260°C For 5 Seconds. | | | |

Electrical / Optical Characteristics and Curves at Ta=25°C

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Unit |
|-----------------|----------------------|----------------|------|------|------|------|
| VF | Forward Voltage | IF= 20 mA | | 3.5 | 4.0 | V |
| IR | Reverse Current | VR= 5 V | | | 50 | μ A |
| $\Delta \theta$ | Half Intensity Angle | IF= 20 mA | | 30 | | Deg. |
| IV | Luminous Intensity | IF= 20 mA | | 8000 | | mcd. |
| X | Chromaticity | IF= 20 mA | | 0.30 | | |
| Y | Coordination | IF= 20 mA | | 0.30 | | |





Electrical Characteristics at Ta=25°C

| Symbol | I _v | | V _F | | λ D | |
|-----------|--------------------|-----------|-----------------|---------|---------------------|-----------------|
| Parameter | Luminous Intensity | | Forward Voltage | | Dominant Wavelength | |
| Condition | IF=20mA | | IF=20mA | | IF=20mA | |
| Unit | mcd | | V | | nm | |
| Binning | Grade | Range | Grade | Range | Grade | Range |
| | BIN21 | 4900~6900 | P0 | 2.8~3.0 | WA | Bluish White |
| | BIN22 | 6900~9700 | P1 | 3.0~3.2 | WB | Pure White |
| | | | P2 | 3.2~3.4 | WC | White |
| | | | P3 | 3.4~3.6 | WD | Yellowish White |
| | | | P4 | 3.6~3.8 | | |
| | | | P5 | 3.8~4.0 | | |

Intensity: Tolerance of minimum and maximum = ± 15%

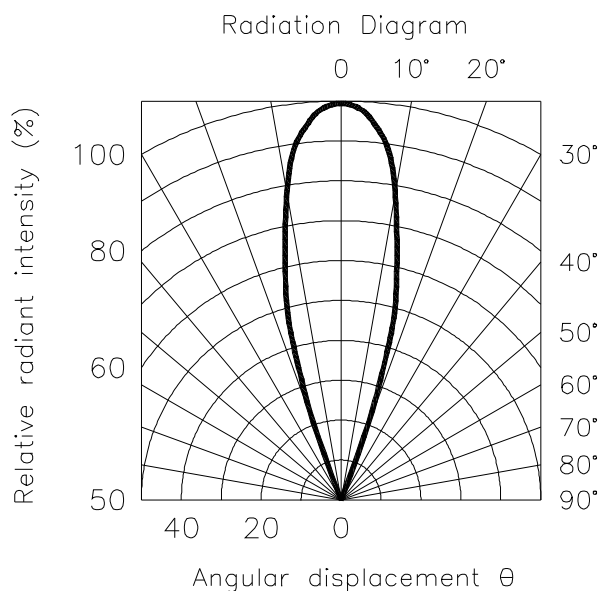
V_f: Tolerance of minimum and maximum = ± 0.05v

NOTE:

1. Static electricity and surge damages the LED. It is recommend to use a anti-static wrist band or anti-electrostatic glove when handing the LEDs. All devices, equipment and machinery must be properly grounded.
2. Specific binning requirements –please contact our home office

Radiation Diagram

IF=20 mA 50% Power Angle Angle Y=30°



WHITE

Typical Electro-optical Characteristic Curves (25°C Free Air Temperature Unless Otherwise Specified)

