

Feature

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

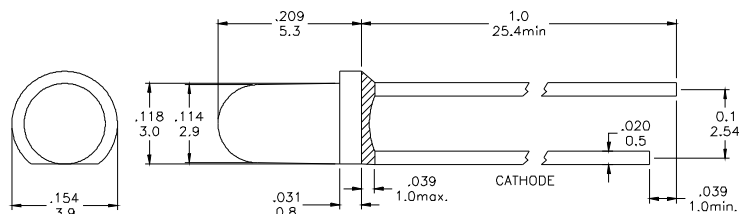
Applications

- 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: $\frac{0.01}{0.25}$ Unit: $\frac{\text{inch}}{\text{mm}}$

Absolute Maximum Ratings at Ta=25°C

| Symbol | Parameter | Max. | Unit |
|--------|---------------------------------------|---------------|---------|
| PD | Power Dissipation | 120 | 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 | μA |
| $\Delta \theta$ | Half Intensity Angle | IF= 20 mA | | 60 | | Deg. |
| IV | Luminous Intensity | IF= 20 mA | | 2500 | | mcd. |
| X | Chromaticity | IF= 20 mA | | 0.31 | | |
| Y | Coordination | IF= 20 mA | | 0.31 | | |



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 |
| | BIN18 | 1800~2500 | P1 | 3.0~3.2 | WA | Bluish White |
| | BIN19 | 2500~3500 | P2 | 3.2~3.4 | WB | Pure White |
| | | | P3 | 3.4~3.6 | WC | White |
| | | | P4 | 3.6~3.8 | WD | Yellowish White |
| | | | P5 | 3.8~4.0 | | |
| | | | | | | |

Intensit : Tolerance of minimum and maximum = ± 15%

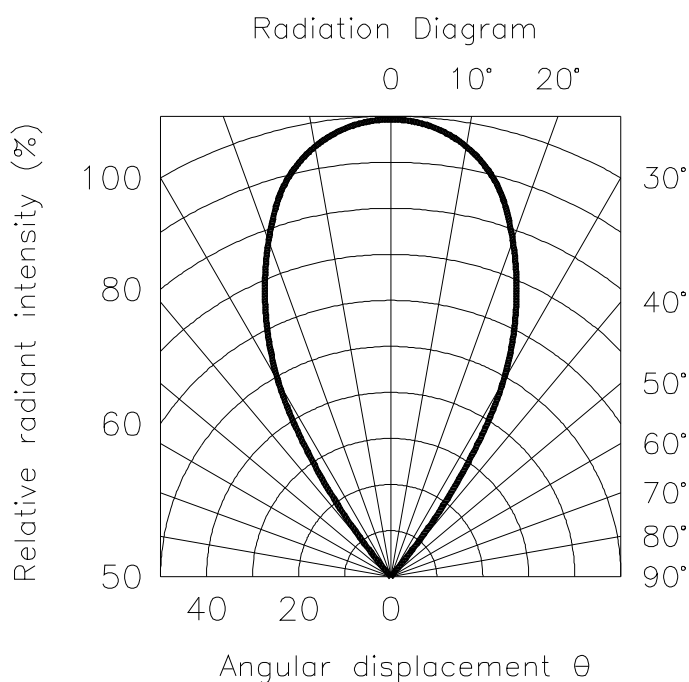
V_f: Tolerance of minimum and maximum = ± 0.05v

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

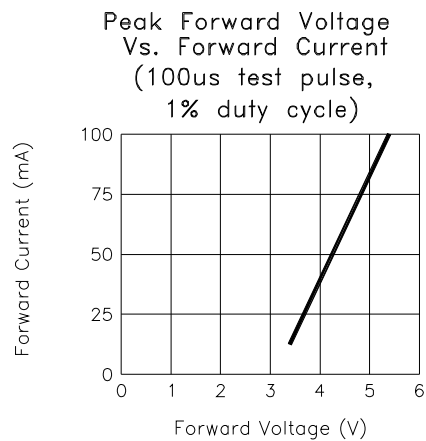
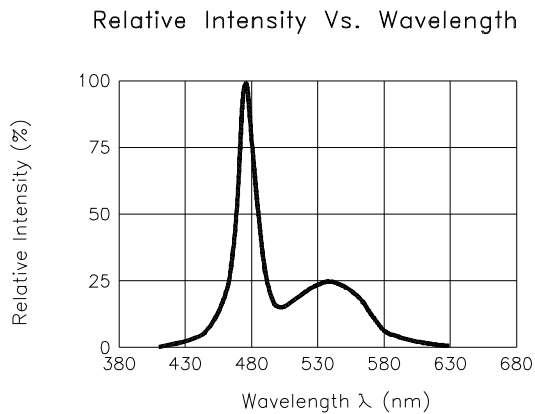
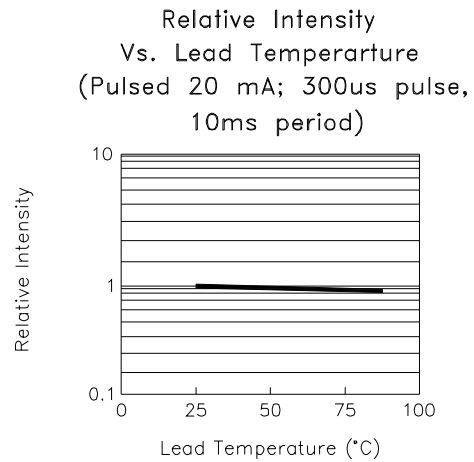
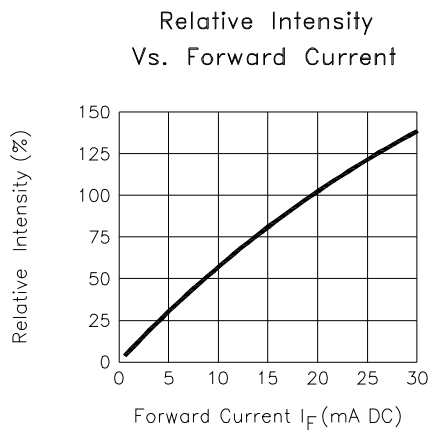
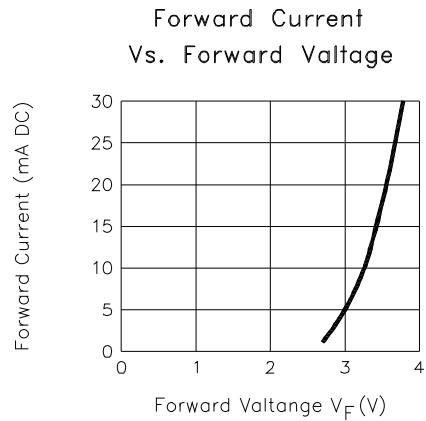
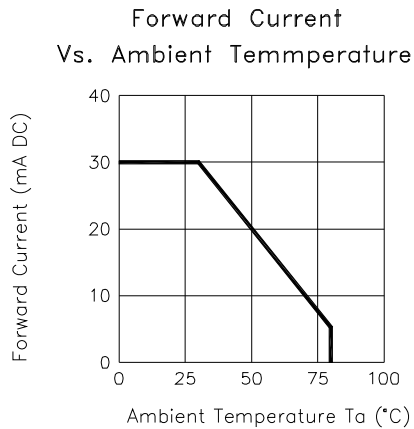
Radiation Diagram

IF=20 mA 50% Power Angle Angle =60°



WHITE

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



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VCC:

[VAOL-3LWY4](#)