

Features

- 5mm Bi-Color Through hole
- 2 leads, 8.65mm lens height
- White diffused lens
- Special packaging available upon request
- High reliability

Applications

- Consumer Electronics
- Variable Message Signs (VMS)
- Automobile After Market
- Industrial Equipment
- Advertising Signs

Description

The INL-5DBURYGP60 is Bi-Color through-hole lamp. It is a 5mm epoxy type LED which can be used in various applications.

Package Dimensions in mm

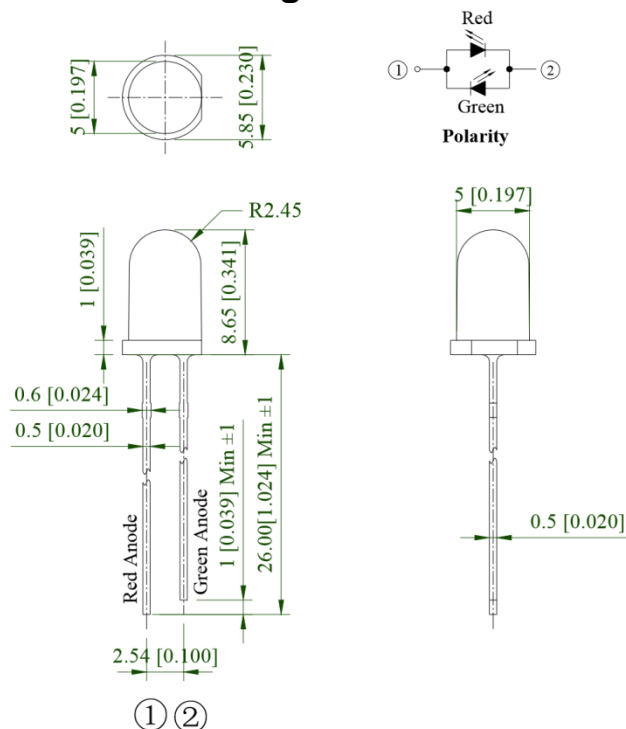


Figure 1. INL-5DBURYGP60 Package Dimensions

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 mm (.010 ") unless otherwise noted.
3. Protruded resin under flange is 1.00mm (0.39") max.

Absolute Maximum Rating at 25°C (Note 1)

| Product | Emission Color | Pd (mW) | IF (mA) | IFP* (mA) | VR (V) | TOP (°C) | TST (°C) |
|----------------|----------------|---------|---------|-----------|--------|--------------|--------------|
| INL-5DBURYGP60 | Red | 65 | 25 | 100 | 5 | -40°C ~+80°C | -40°C ~+85°C |
| | Yellow Green | | | | | | |

Notes

1. Condition for IFP is pulse of 1/10 duty and 0.1msec width

Electrical Characteristics $T_A = 25^\circ\text{C}$ (Note 1)

| Product | Emission Color | I _F (mA) | V _F (V) | | λ(nm) | | | Viewing Angle | I _V (mcd) | |
|----------------|----------------|---------------------|--------------------|-----|----------------|----------------|----|---------------|----------------------|------|
| | | | min | max | λ _D | λ _P | Δλ | 2θ 1/2 | min | typ. |
| INL-5DBURYGP60 | Red | 20 | 1.6 | 2.6 | 630 | 645 | 45 | 60 | 1 | 6 |
| | Yellow Green | 20 | 1.6 | 2.6 | 571 | 565 | 20 | | 6 | 13 |

Notes 1. Performance guaranteed only under conditions listed in above tables.

ESD Precaution

ATTENTION: Electrostatic Discharge (ESD) protection

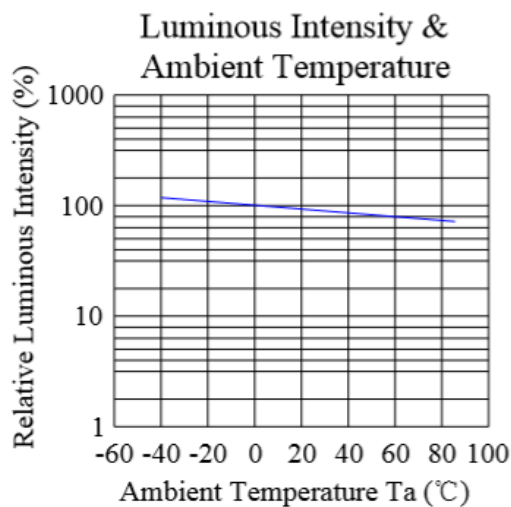
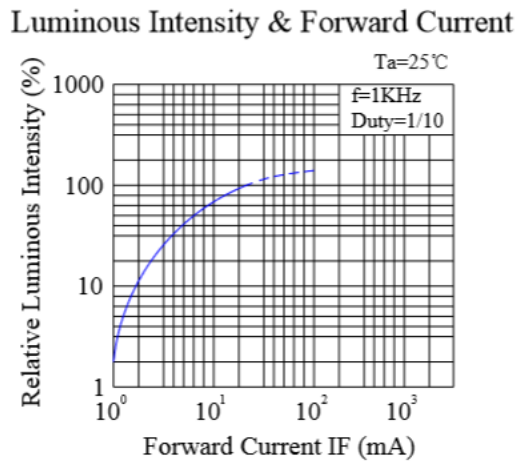
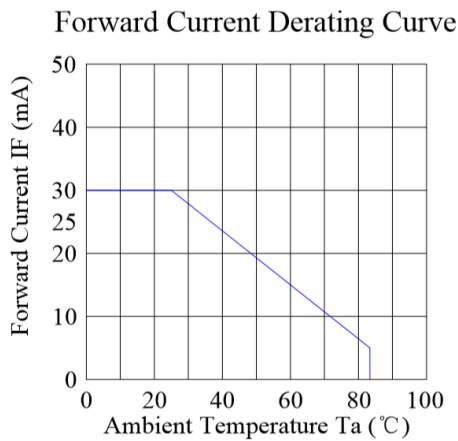
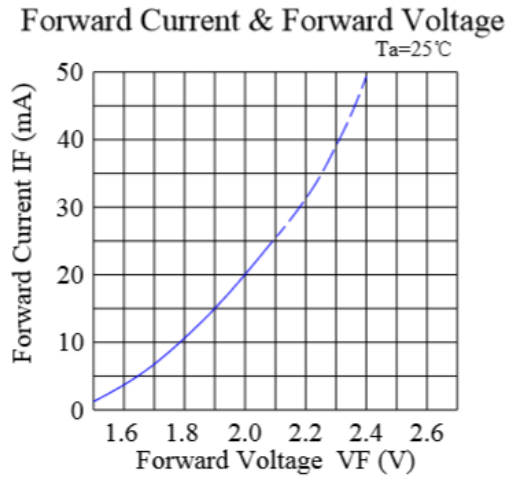
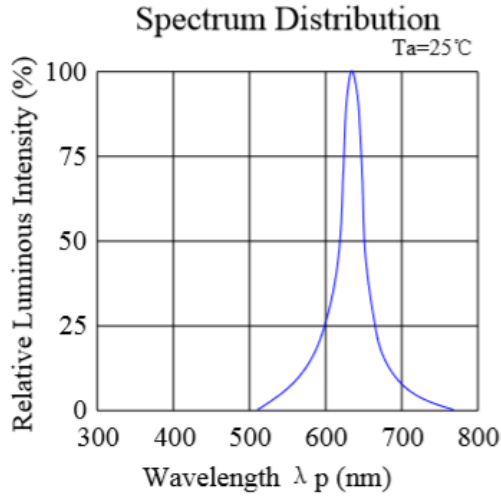


The symbol above denotes that ESD precaution is needed. ESD protection for GaP and AlGaAs based chips is necessary even though they are relatively safe in the presence of low static-electric discharge. Parts built with AlInGaP, GaN, or/and InGaN based chips are STATIC SENSITIVE devices. ESD precaution must be taken during design and assembly.

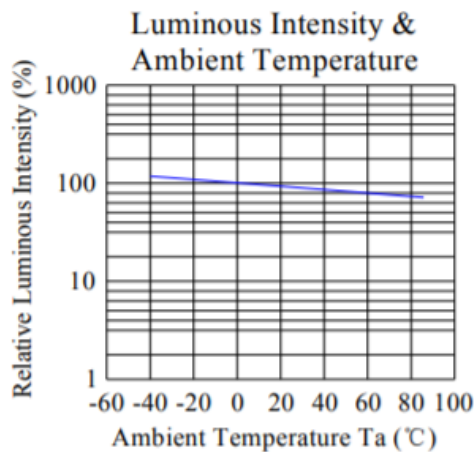
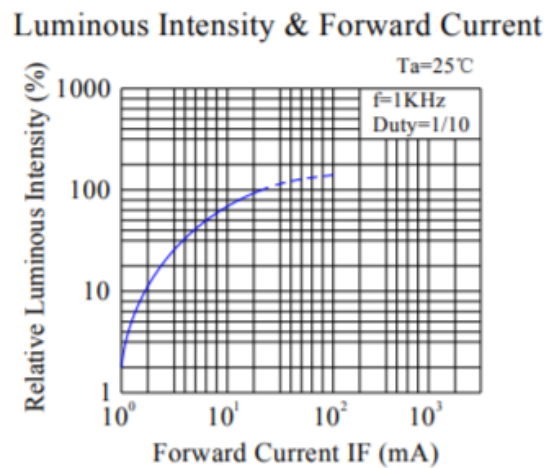
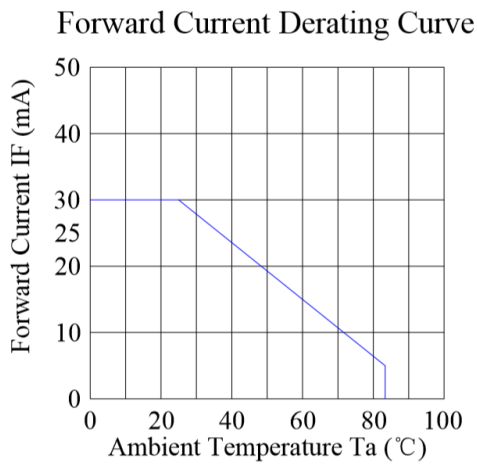
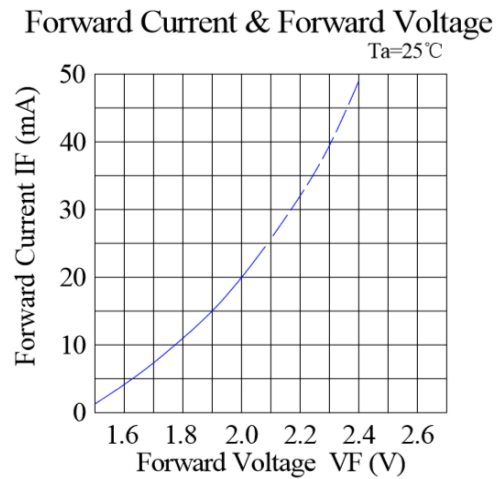
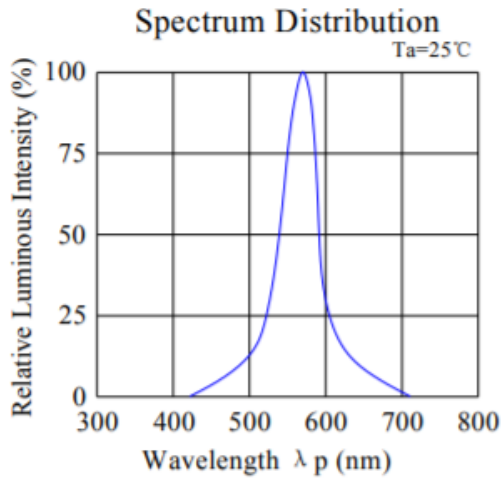
If manual work or processing is needed, please ensure the device is adequately protected from ESD during the process.

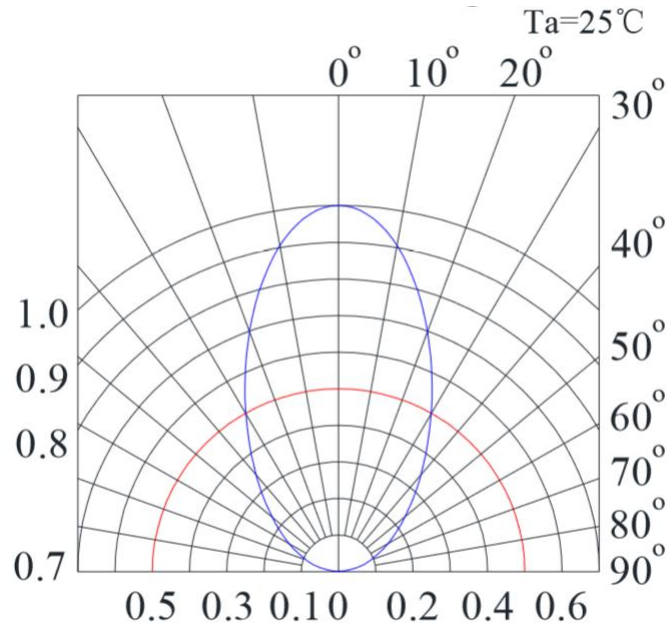
Please be advised that normal static precautions should be taken in the handling and assembly of this device to prevent damage or degradation which may be induced by electrostatic discharge (ESD).

Typical Characteristic Curves-Red



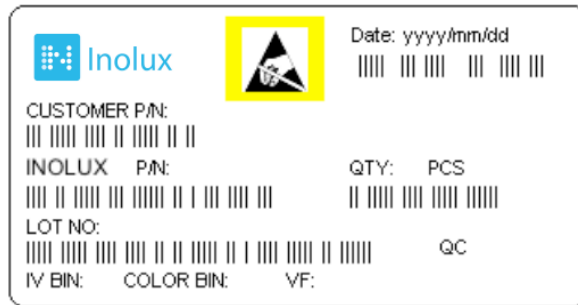
Typical Characteristic Curves-Yellow Green



Typical Characteristic Curves – Radiation Pattern

Ordering Information

| Product | Emission Color | Test Current I_F (mA) | Luminous Intensity I_V (mcd) (Typ.) | Forward Voltage V_F (V) (Typ.) | Orderable Part Number |
|----------------|----------------|----------------------------|---|--|-----------------------|
| INL-5DBURYGP60 | Red | 20 | 6 | 2.0 | INL-5DBURYGP60 |
| | Yellow Green | 20 | 13 | 2.0 | |

Label Specifications



Inolux P/N:

| | | | | | | | | | | | | | | |
|--------------------------------|---|---|-------------------------|-----------------------|-----------|--------------|-------------------------|---|----|---|---|---|---|---|
| I | N | L | - | 5 | DB | U | RYG | P | 60 | - | X | X | X | X |
| Inolux Through Hole Lamp | | Material | Lens | Color | Chip Type | View Angle | Customized Stamp-off | | | | | | | |
| | | 5DB = Standard 8.6mm dual chip | U = Diffused Lens | R = 630nm YG=571nm | P = GaP | 60 = 60 deg. | | | | | | | | |

Lot No.:

| | | | | | | | |
|---------------------|--------------------------|---|---|---|-------|------|--------|
| Z | 2 | 0 | 1 | 7 | 01 | 24 | 001 |
| Internal Tracker | Year (2017, 2018,) | | | | Month | Date | Serial |

Reliability

| Item | Frequency/ lots/ samples/ failures | Standards Reference | Conditions |
|--------------------------------------|---|--------------------------------|--|
| Precondition | For all reliability monitoring tests according to JEDEC Level 2 | J-STD-020 | 1.) Baking at 85°C for 24hrs 2.) Moisture storage at 85°C/ 60% R.H. for 168hrs |
| Solderability | 1Q/ 1/ 22/ 0 | JESD22-B102-B And CNS-5068 | Accelerated aging 155°C/ 24hrs Tinning speed: 2.5+0.5cm/s Tinning: A: 215°C/ 3+1s or B: 260°C/ 10+1s |
| Resistance to soldering heat | | CNS-5067 | Dipping soldering terminal only Soldering bath temperature A: 260+/-5°C; 10+/-1s B: 350+/-10°C; 3+/-0.5s |
| Operating life test | 1Q/ 1/ 40/ 0 | CNS-11829 | 1.) Precondition: 85°C baking for 24hrs 85°C/ 60%R.H. for 168hrs 2.) Tamb25°C; IF=20mA; duration 1000hrs |
| High humidity, high temperature bias | 1Q/ 1/ 45/ 0 | JESD-A101-B | Tamb: 85°C Humidity: 85% R.H., IF=5mA Duration: 1000hrs |
| High temperature bias | 1Q/ 1/ 20 | IN specs. | Tamb: 55°C IF=20mA Duration: 1000hrs |
| Pulse life test | 1Q/ 1/ 40/ 0 | | Tamb25°C, If=20mA,, Ip=100mA, Duty cycle=0.125 (tp=125μ s,T=1sec) Duration 500hrs) |
| Temperature cycle | 1Q/ 1/ 76/ 0 | JESD-A104-A IEC 68-2-14, Nb | A cycle: -40 degree C 15min; +85 degree C 15min Thermal steady within 5 min.. 300 cycles 2 chamber/ Air-to-air type |
| High humidity storage test | 1Q/ 1/ 40/ 0 | CNS-6117 | 60+3°C 90+5/-10% R.H. for 500hrs |
| High temperature storage test | 1Q/ 1/ 40/ 0 | CNS-554 | 100+10°C for 500hrs |
| Low temperature storage test | 1Q/ 1/ 40/ 0 | CNS-6118 | -40+5°C for 500hrs |

Revision History

| Changes since last revision | Page | Version No. | Revision Date |
|-----------------------------|------|-------------|---------------|
| Initial Release | | 1.0 | 07-15-2019 |
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