

## Features

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

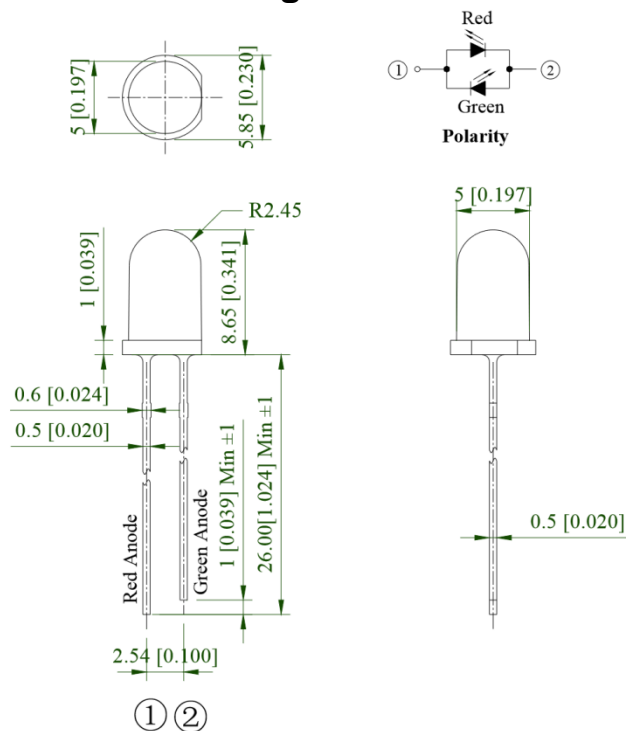
## Applications

- 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  $\pm 0.25$  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 <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ(nm)			Viewing Angle	I <sub>V</sub> (mcd)	
			min	max	λ <sub>D</sub>	λ <sub>P</sub>	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

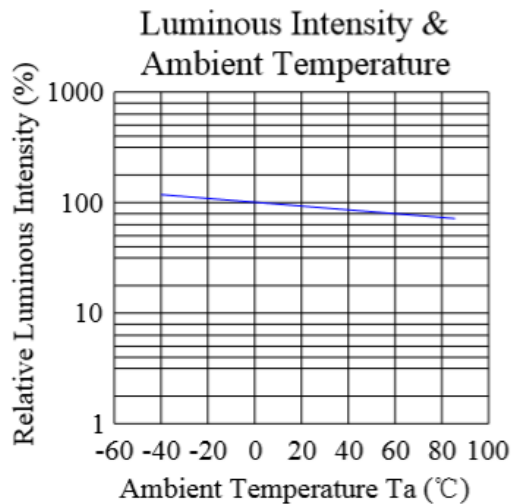
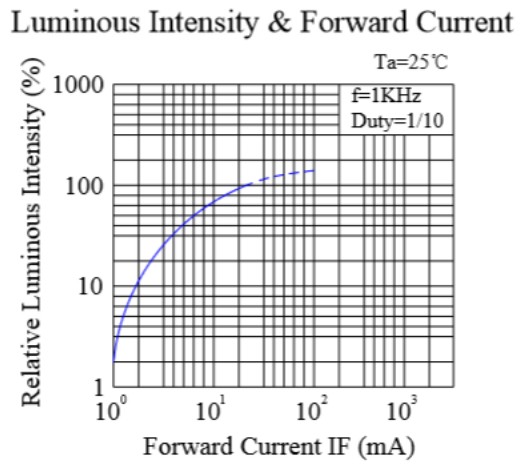
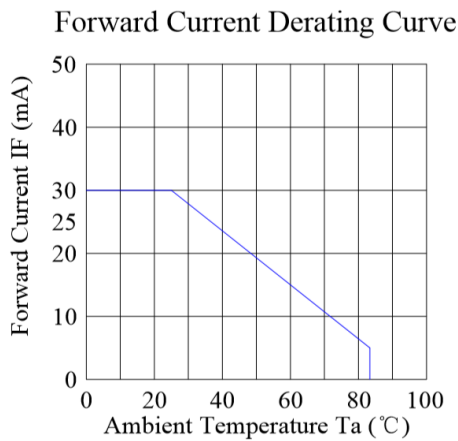
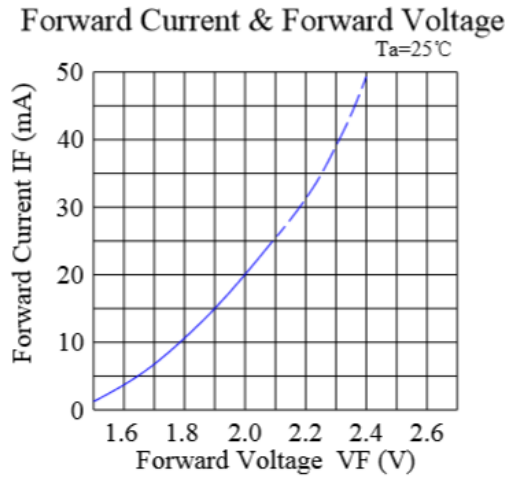
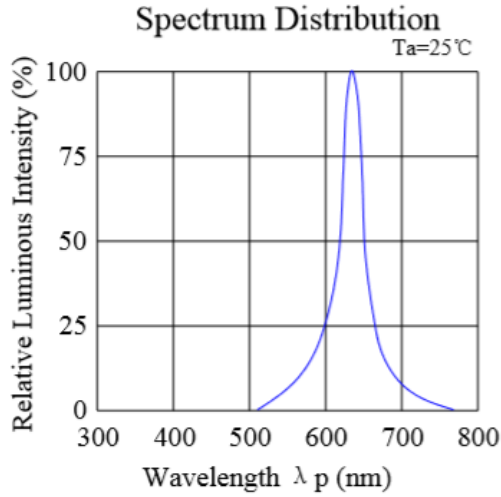


The symbol above denotes that ESD precaution is needed. ESD protection for GaP and AlGaAs based chips is necessary even though they are relatively safe in the presence of low static-electric discharge. Parts built with AlInGaP, GaN, or/and InGaN based chips are STATIC SENSITIVE devices. ESD precaution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

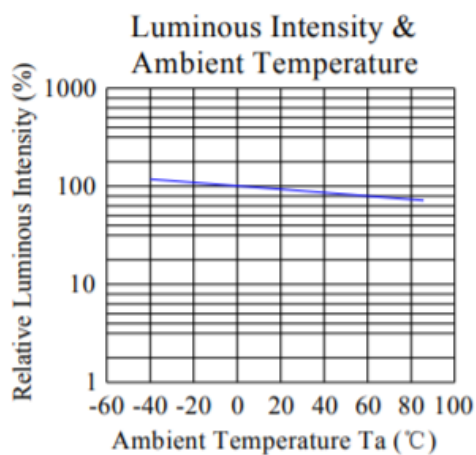
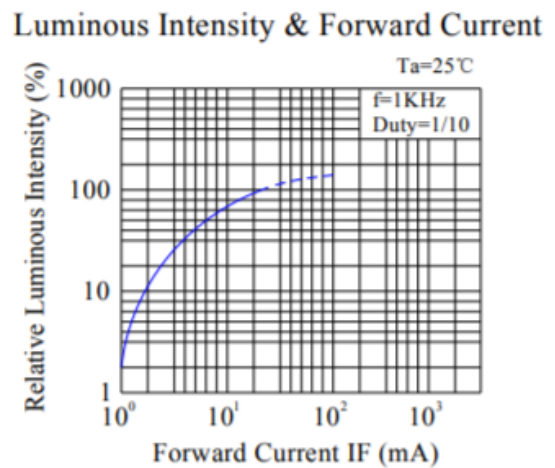
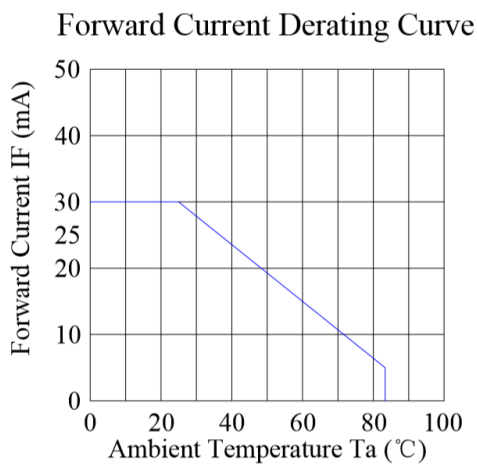
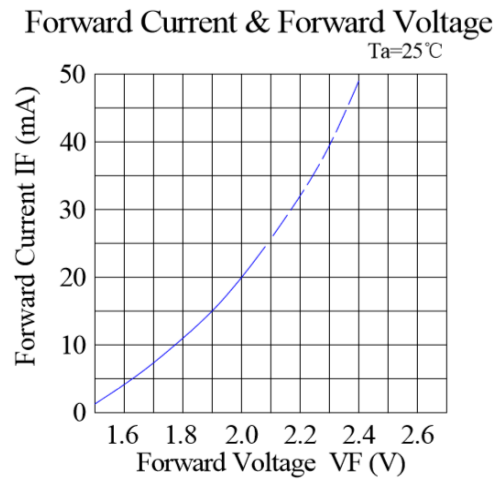
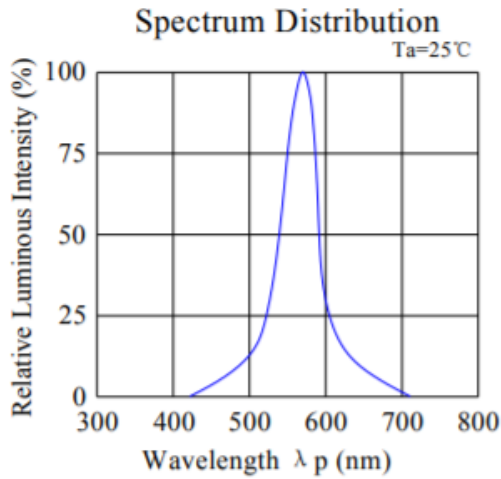
If manual work or processing is needed, please ensure the device is adequately protected from ESD during the process.

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).

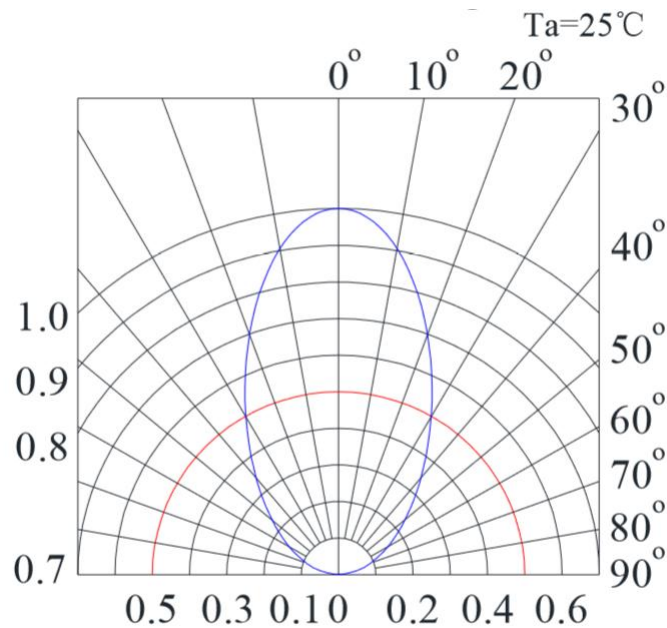
### Typical Characteristic Curves-Red



### Typical Characteristic Curves-Yellow Green



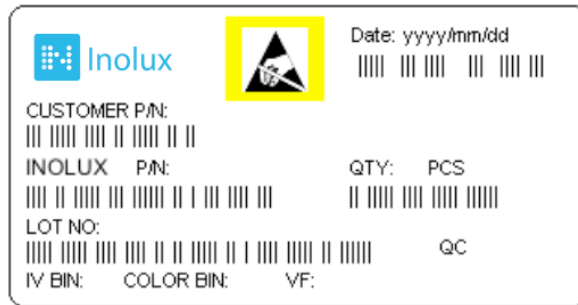
### Typical Characteristic Curves – Radiation Pattern



### 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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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.