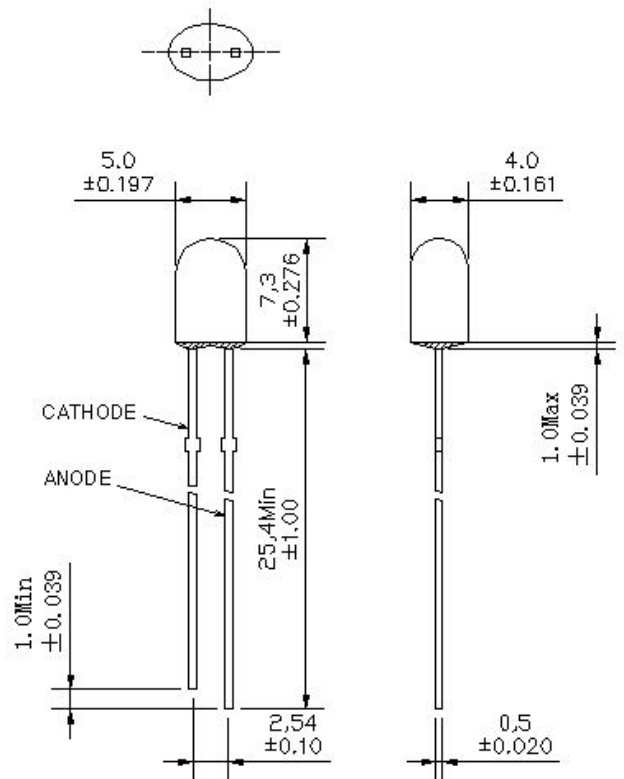


GNL-5464xD-NC (Φ5mm OVAL TYPE)

RGB TV series (Cree Crystal)

ABSOLUTE MAXIMUM RATING:(Ta=25°C)

Parameter	G, B	Red	Unit
DC Forward Current	30	50	mA
Reverse Voltage	5	5	V
Power Dissipation	120	120	mw
Reverse Current (Vr=5V)	5	5	μA
Peak Forward Current ,tw ,=1 msec Duty ,=1/20	120	150	mA
Operation Temperature	-40,+80	-40,+80	°C
Storage Temperature	-40,+100	-40,+100	°C
Solder Dip (5 seconds,1.6mm from body) Temperature	300±5	300±5	°C



Feature:

- 1.Small flange without stand-off
- 2.Long life-solid state reliability
- 3.Long lead length(25.4mm)
- 4.Versatile mounting on P.C. board or panel

Description:

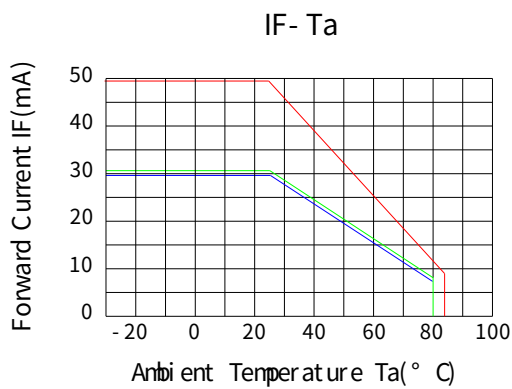
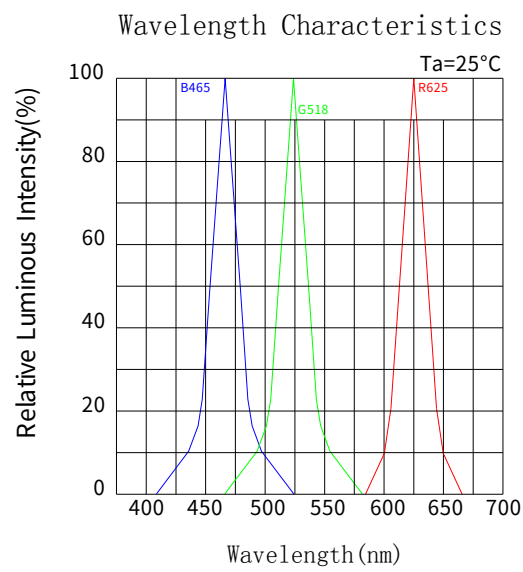
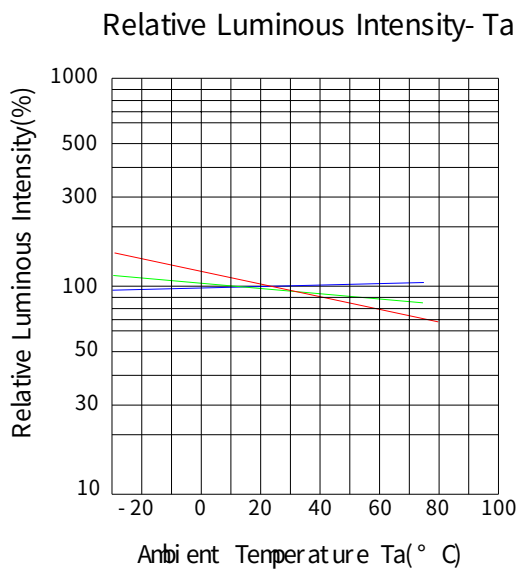
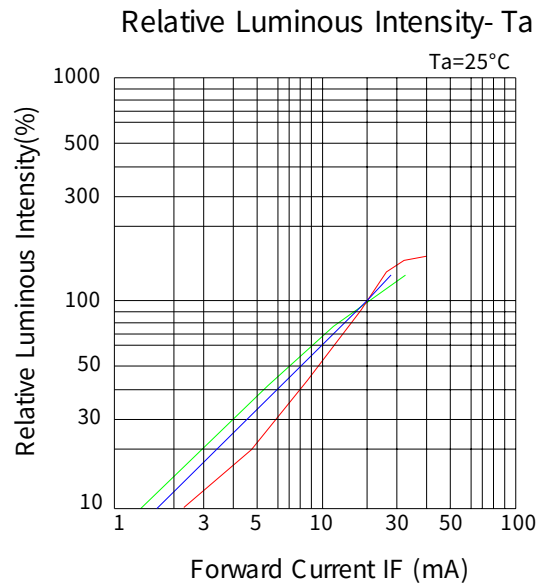
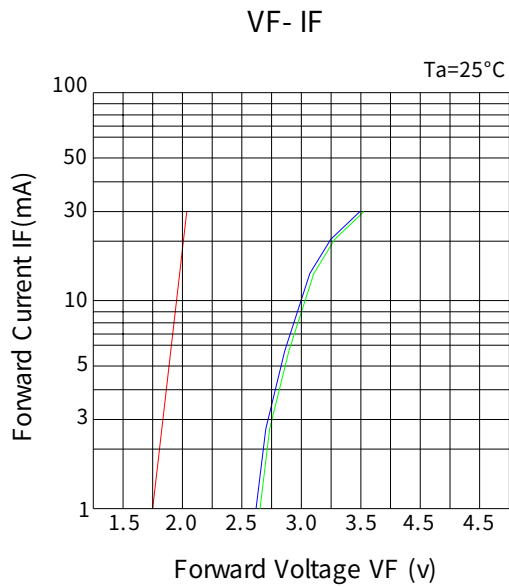
1. The shape of this series is round
2. These LED lamps are available with a choice of different
3. General application is for indication, illumination etc.
colors, light intensities, epoxy colors etc.

Part Number	EMITTED COLOR		Lens Color	Peak Wavelength (nm)	Vf (v) Typ.	IV (If=20mA) mcd		View Angle 2 θ 1/2
						Min.	Typ.	
GNL-5464UED-NC	GaAlInP	Super Red	Red Diffused	625	2.0	300	450	100°/37°
GNL-5464PGD-NC	InGaN (Cree)	Pure Green	Green Diffused	518	3.5	1000	1200	100°/37°
GNL-5464UBD-NC	InGaN (Cree)	Super Blue	Blue Diffused	465	3.5	150	250	100°/37°

The 525nm green & 468nm blue LED may be supplied by special request with special price

*These graphs show typical values

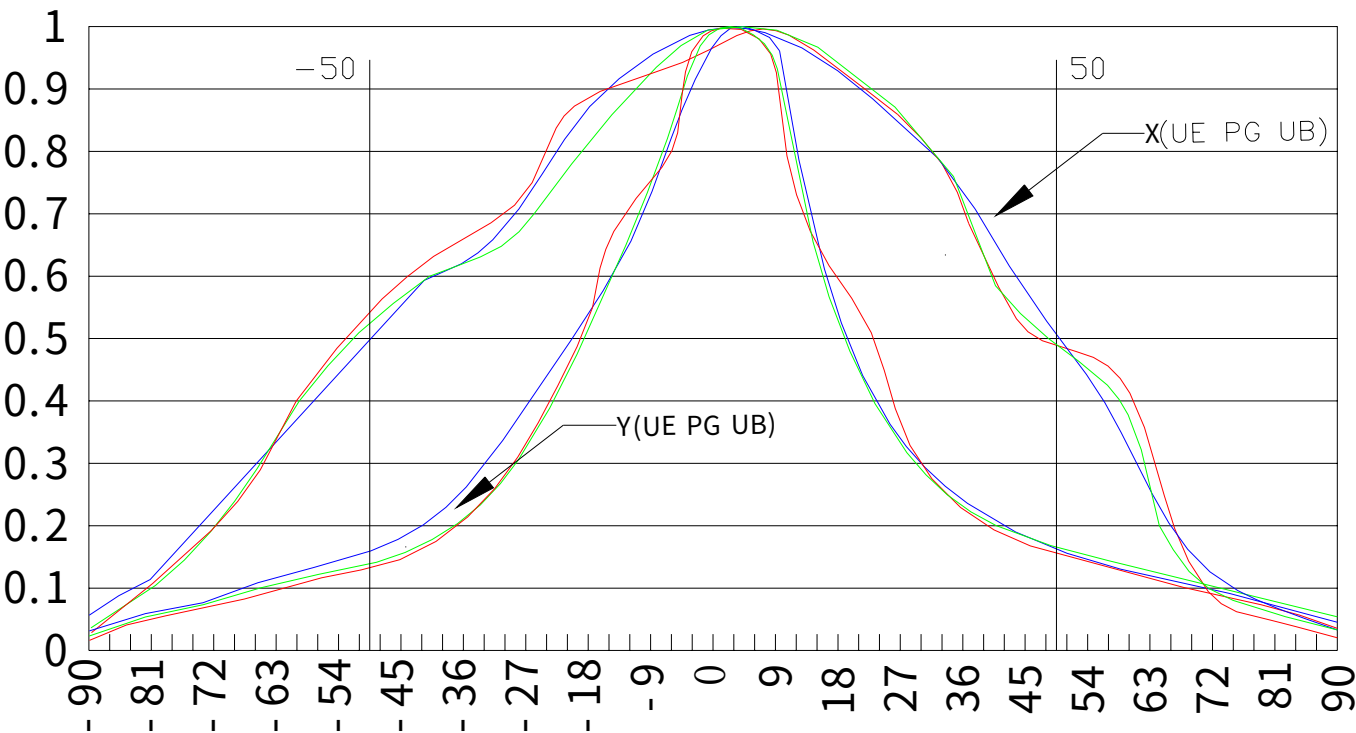
Through-Hole LED Lamp Electronics-Optical Characteristics



View Pattern Of LED In Screen For Example

GNL- 5464xxD- NC Pattern

5464UED X 5464PGD X 5464UBD X
5464UED Y 5464PGD Y 5464UBD Y



Bining Rank System

Red Ranks

Rank	Vf(V)
1	1.8-2.0
2	2.0-2.2

Rank	Intensity(mcd)
J	270-350
K	350-460

Rank	Wavelength(nm)
40	621-623
41	623-625
42	625-627

Green Ranks

Rank	Vf(V)
7	3.1-3.3
8	3.3-3.5
9	3.5-3.7

Rank	Intensity(mcd)
N	780-1000
O	1000-1300

Rank	Wavelength(nm)
17	515-517
18	517-519
19	519-521

Blue Ranks

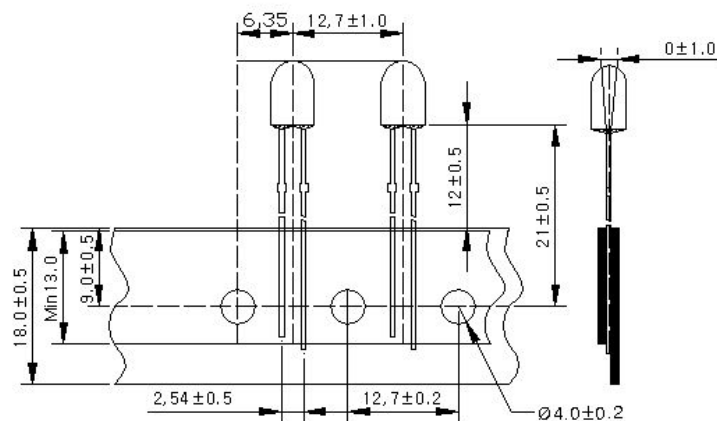
Rank	Vf(V)
7	3.1-3.3
8	3.3-3.5
9	3.5-3.7

Rank	Intensity(mcd)
H	140-210
I	210-270

Rank	Wavelength(nm)
5	460-463
6	463-465
7	465-467

Packaging information:

1. Bulk: 500 pieces / bag;
 2. Tape: 2,000 pieces/reel;
- Taping Outline Dimensions (Unit:mm):



3. Bin Code on packages:

An example for red LED: 2K44

Vf

Precautions In Use

1. Soldering Conditions

- ◆ When soldering, leave minimum clearance between the resin and the soldering point.

Maximum allowable soldering conditions are:

solder dipping: 260° C max., 5 seconds max., one time.

- ◆ Soldering iron: 350° C max., 5 seconds max., one time, and power 40w max.

- ◆ Contact between molten solder and the resin must be avoided.

- ◆ Adjusting the soldered position after soldering must be avoided.

- ◆ In soldering, do not put any stress to the lead frame, particularly when heated.

- ◆ When other SMD parts on the same circuit board and adhesive is to be cured, maximum allowable Conditions are: 120° C max., 60 seconds max.

2. Lead forming and cut

- ◆ Lead forming must be done below the tie bar cutting portion.

- ◆ When forming a lead, do not stress the resin case.

- ◆ Cutting lead forming must be done before soldering.

- ◆ Cutting the lead frame at high temperature may cause problems. Cut the lead frame at room temperature.

3. Assembly

- ◆ Do not put any stress to the lead frame while assembling.

- ◆ When mounting products onto PCBs, the pitch between the mounting holes must match the pitch of the lead Frame.

4. Static Electricity

- ◆ These products are so sensitive to static electricity charge that users are required to handle with care. Particularly if an over-current and over-voltage which exceeds the Absolute Maximum Rating of Products is applied, the overflow in energy may cause damage to, or possibly result in electrical destruction of, the Products. Customer is requested to adequate countermeasures against static electricity charge and surge when handing Products.

- ◆ A protection device should be installed in the LED driving circuit, which does not exceed the maximum rating for surge current during on/off switching.

- ◆ Proper grounding of Products (via 1MΩ), use of conductive mat, semi-conductive working uniform and shoes, and semi-conductive containers are considered to be effective as countermeasures against static electricity and surge.

- ◆ When the electrified product touches the low resistance part such as the metal face, there is a high

possibility that it may be charged due to radical electric discharge. When grinding, use of resisting element such as conductive mat is effective for parts where the product directly touches.

◆A tip of soldering iron is requested to be grounded. An ionizer should also be installed where risk of static generation is high.

◆If the countermeasures mentioned above are implemented, LED can work well. Users are required to check those countermeasures when problems occur by static electricity charge.

5. Safety Precautions

◆Users are requested to comply with the laws and public regulations concerning safety.

◆The light output of the Products may cause injuries to human eyes in circumstances where the Products are viewed directly for more than a few seconds.