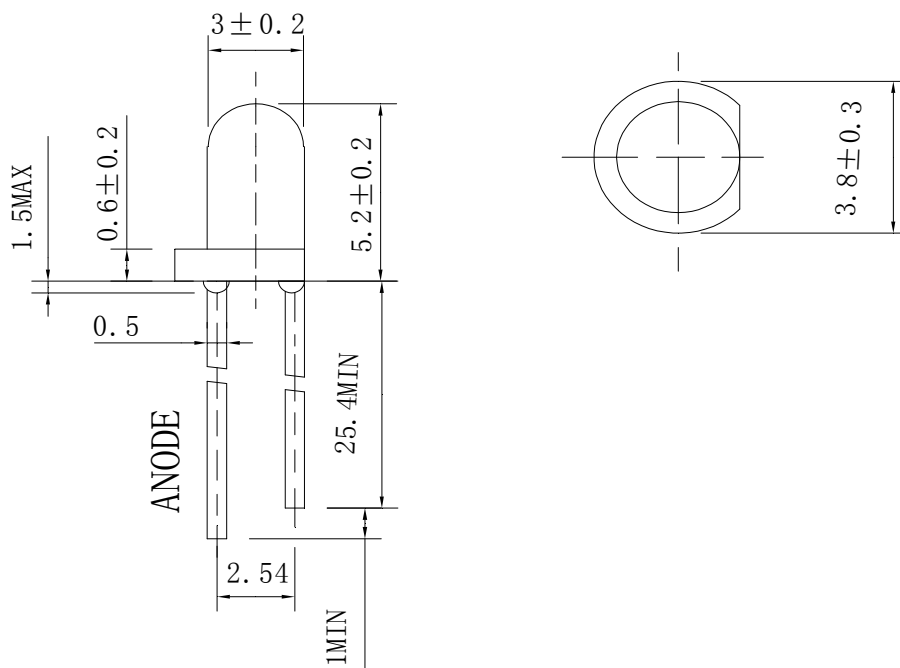


**Features**

- 3mm DIA LED Lamp
- Low Power Consumption
- High Efficiency
- Various Colors and Viewing Angle
- Long Solid State Reliability
- Package: 1000pcs/Packing

**Applications**

- Indicator

**Package Dimensions****Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  (.01") unless otherwise noted.
3. Protruded Resin under flange is 1.0mm(0.04") max.
4. Specifications are subject to change without notice.



**Selection Guide**

Part No	Lens Type	Dice	Emitted Color
FDL-3521HW-ZC1	Water Clear	InGaN	White

**Electrical / Optical Characteristics At Ta=25°C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Iv	Luminous Intensity	8000	10000	12000	mcd	IF=20mA
2θ1/2	Viewing Angle		30		deg	
x	Chromaticity Coordinates		0.29		nm	IF=20mA
y			0.31			
VF	Forward Voltage	2.7		3.50	V	IF=20mA
IR	Reverse Current			100	uA	VR 5V

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 optical centerline value
2. The chromaticity coordinates(x,y) is derived from 1931 CIE chromaticity diagram.
3. The chromaticity coordinates(x,y) guarantee should be added±0.02 tolerance.

**Absolute Maximum Ratings At Ta=25°C**

Parameter	White	Unit
Power Dissipation	70	Mw
Peak Forward Current	100	Ma
Continuous Forward Current	20	Ma
Dreading Linear From25°C	0.25	mA/°C
Reverse Voltage	5	V
Electrostatic Discharge Threshold	300	V
Operating Temperature Range	-20°C to + 80°C	
Storage Temperature Range	-55°C to + 85°C	
Soldering Condition	260°C For 5 Seconds	

Note:

1. 1/10DutyCycle,0.1msPulseWidth

**Electrical Optical Characteristics Curves At Ta=25°C**

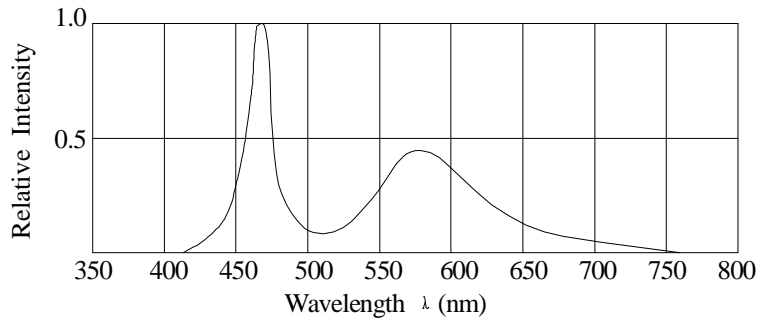


Fig.1 Relative Intensity VS. Wavelength

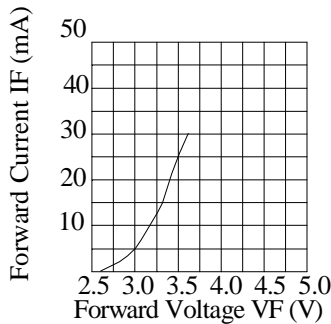


Fig.2 Forward Current vs. Forward Voltage

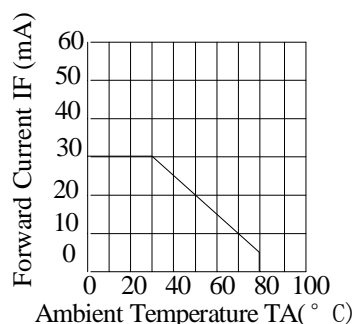


Fig.3 Forward Current Derating Curve

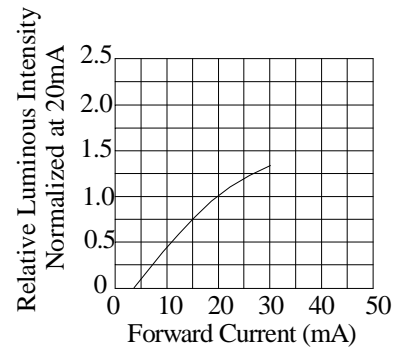


Fig.4 Relative Luminous Intensity vs. Forward Current

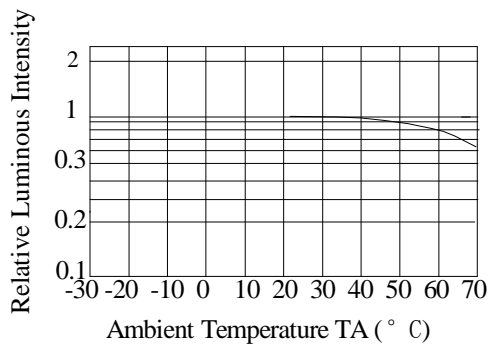


Fig.5 Luminous Intensity vs. Ambient Temperature

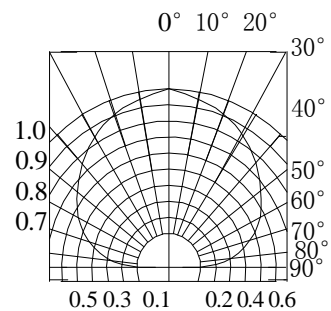


Fig.6 Spatial Distribution