東莞洲磊電子有限公司
Uni Light Technology Inc.

GaP Yellow-Green Chip TC610YGUK

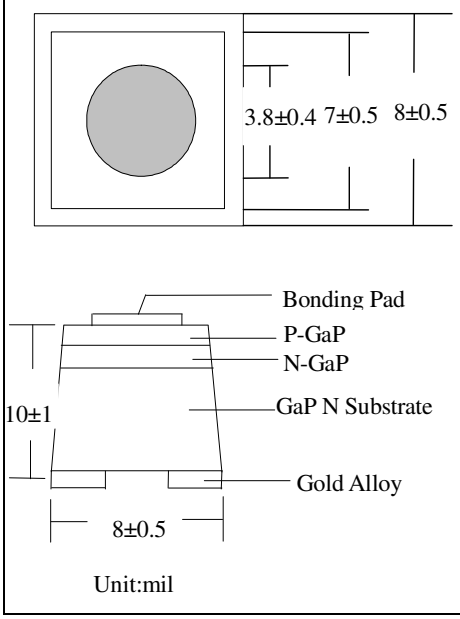
1.Product Description:

TC610YGUK is a yellow-green LED chip.The chips have optimized LPE technology process to perform high brightness in this field. Advanced roughen surface technology makes the chip brighter than normal versio.The production process is very matured and stabilized in mass Production. The uniformity of the chips is highly centralized in a Limited range，which makes the product quality and production Efficiency outstanding.The chip is friendly to adapt in various Applications.

2.Features:

- ◆Ultra Yellow-Green
- ◆GaP/GaP
- ◆Rough Surface
- ◆High Stability
- ◆High Quality
- ◆Various Applications

3.Chip Dimensions and Structure:



1.Chip size: (8±0.5mil)×(98±0.5mil)
(200±12. 5μm)×(200±12. 5μm)

2.Emitting area: (7±0.5mil)×(7±0.5mil)
(175±12. 5μm)×(175±12. 5μm)

3. Thickness: 10±1mil

4. Bonding pad: 3.8±0.4mil
(95±10μm) in diameter

5. Electrode :
P side: Aluminum or gold
N side: Gold alloy

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2017 年 1 月 A 版

4.Electro-optical Characteristics at 25℃:

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITION
Forward Voltage	V_F	-	2.2	2.45	V	I_F= 20mA
Reverse Voltage	V_R	5	-	-	V	I_R=10μA
Leakage current	Ir	-	-	1	μA	Vr=9V
Wavelength	λ_D	566	570	574	nm	I_F=20mA
Luminous Intensity	Iv	-	※	-	mcd	I_F=20mA

※

- **Rank 1 : 9~9.99mcd**
- **Rank 2 : 10~10.99mcd**
- **Rank 3 : 11~11.99mcd**
- **Rank 4 : 12~12.99mcd**
- **Rank 5 : 13~13.99mcd**
- **Rank 6 : 14~14.99mcd**
- **Rank 7 : 15~15.99mcd**

5.Absolute Maximum Ratings:

Parameter	Symbol	Condition	Rating
Forward DC current	If	Ta=25℃	≦30mA
Junction Temp	Tj	---	≦115℃
Reverse Voltage	Vr	Ta=25℃	≦10V
Storage Temp	Tstg	chip	-40~85℃
		chip on tape/storage	0~30℃ RH≦60%
		chip on tape/transportation	-20~50℃
Temp during packaging	---	---	Max 265℃ (≦15sec)

Note:

1) Using the maximum rated current or voltage, is used as a single chip, and is a limit on the PCB board and no glue, independent constant-current source driver.Higher than the rated conditions, P-N junction temperature higher than 115 ℃ can lead to damage of the LED chip.

2)Under the condition of maximum 265℃ high temperature used only for 15 seconds, high temperature or time is too long, can cause damage to the chip.

3) The best storage conditions of Blue tape is placed in the shade dry environment,

Indoor temperature is not higher than 30℃, Relative humidity below 60%, shelf life is 1 year.

6.Characteristic Curves:

Remark: These are the typical TC610YGUK measured values, along with different brightness and wavelength , the actual value is slightly different.

Fig1. Intensity vs. Forward Current

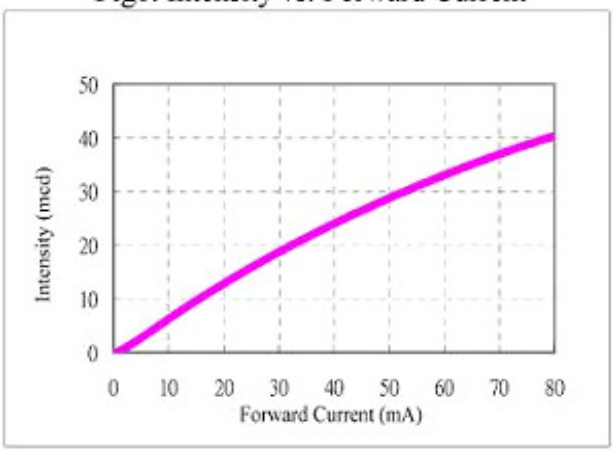

Fig2. Forward Current vs. Forward Voltage

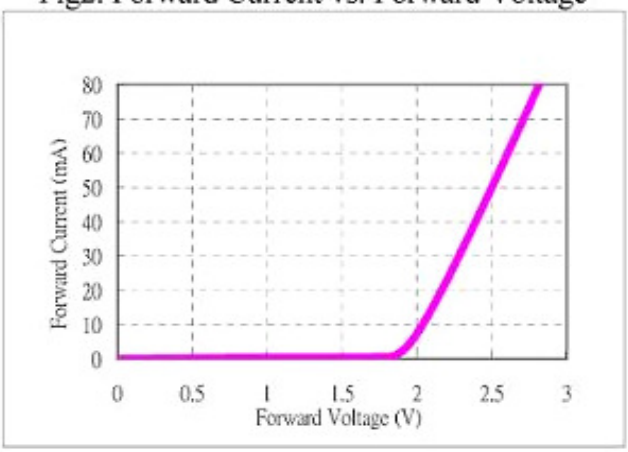

Fig3. Wavelength vs. Forward Current

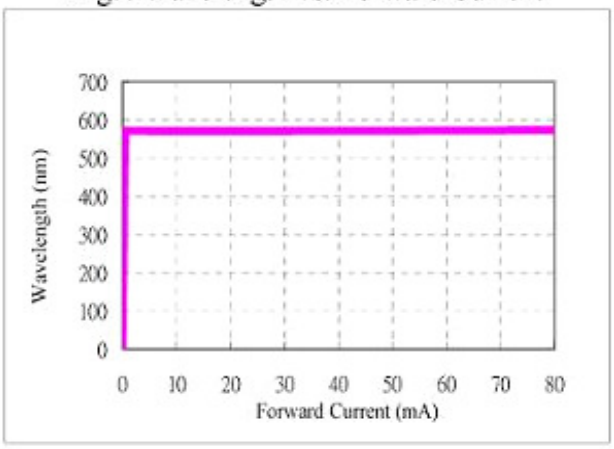

Fig4. Relative Wavelength vs. Temperature

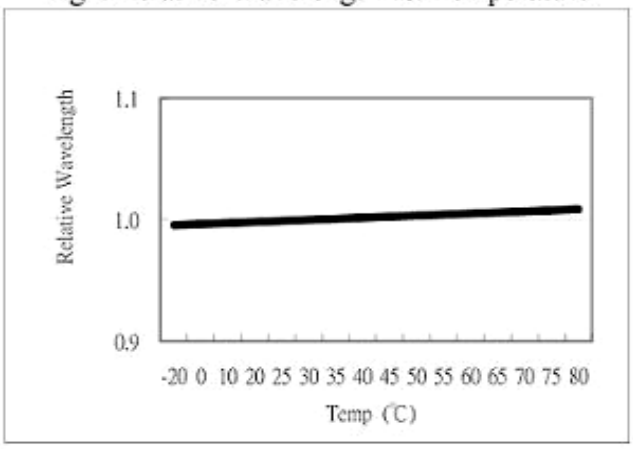

Fig5. Relative Intensity vs. Temperature

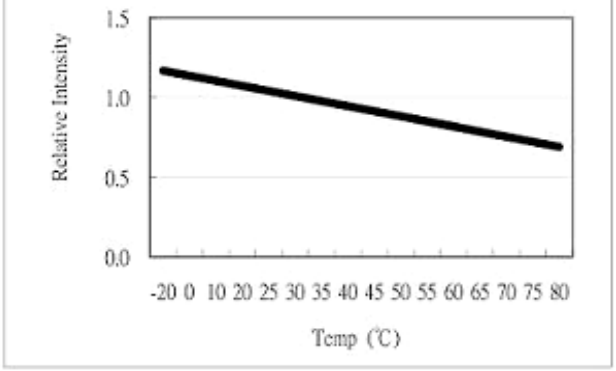

Fig6. Wavelength range