



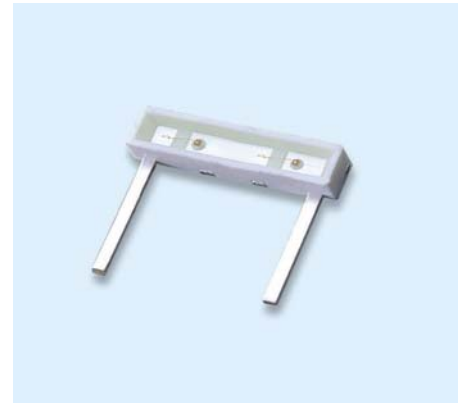
## Technical Data Sheet

### Side View LED (Through Hole Type)

#### 94-22/G6C-AQ2S1

#### Features

- White package.
- Dual-chip, wide-angle, low-profile LEDs .
- Excellent chip to chip consistency
- Super Intensity
- High performance
- Pb-free.
- The product itself will remain within RoHS compliant version.



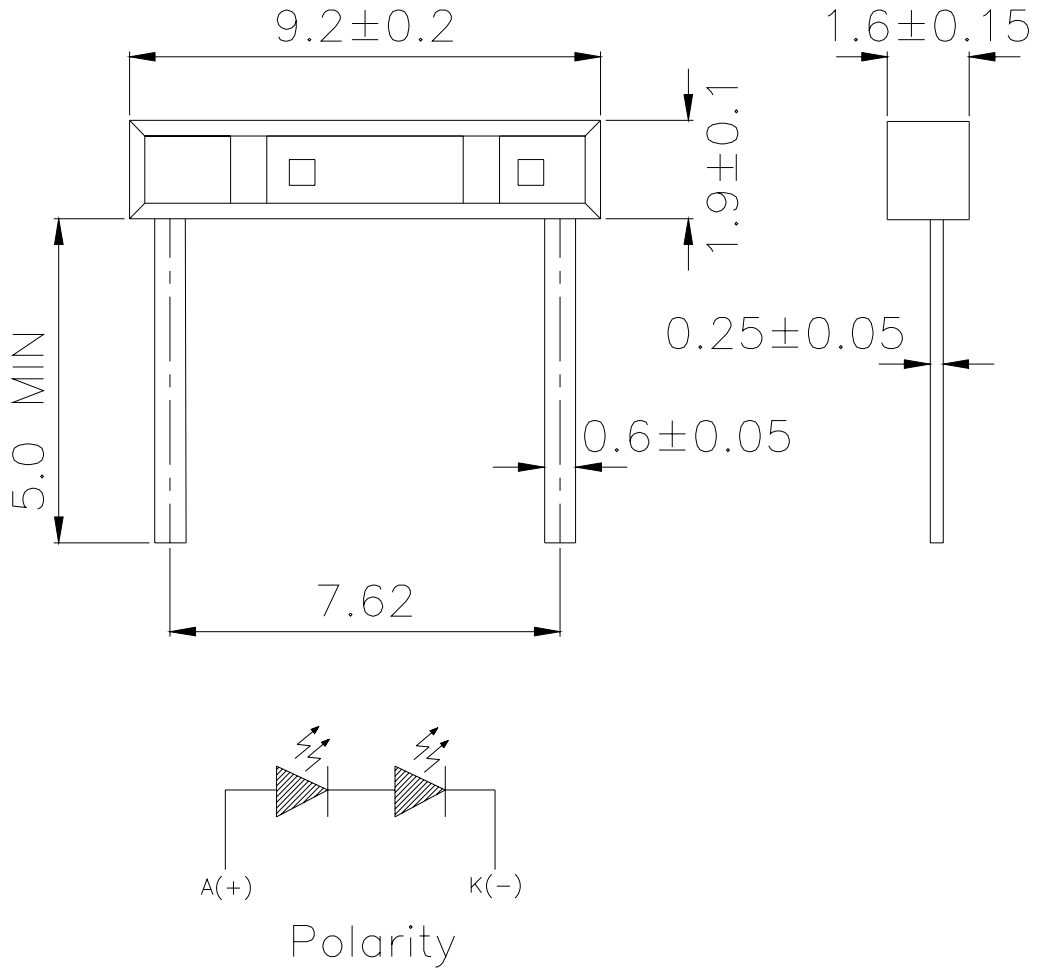
#### Applications

- Automotive: backlighting in dashboard and switch.
- Telecommunication: indicator and backlighting in telephone and fax.
- Indicator and backlight for audio and video equipment.
- Indicator and backlight for battery driven equipment.
- Display Screen Illumination on Portable Handheld Devices
- Indicator and backlight in office equipment.
- General use.

#### Device Selection Guide

Chip	Emitted Color	Resin Color
Material		
AlGaInP	Brilliant Yellow Green	Water Clear

**Package Dimensions**



**Note:** The tolerances unless mentioned is ±0.1mm ;Unit = mm

**Absolute Maximum Ratings @Ta=25°C**

Parameter	Symbol	Rating	Unit
Reverse Voltage	V <sub>R</sub>	5	V
Power Dissipation	P <sub>d</sub>	60	mW
Peak Forward Current (Duty 1/10 @ 1KHz)	I <sub>FP</sub>	60	mA
Forward Current	I <sub>F</sub>	25	mA
Electrostatic Discharge(HBM)	ESD	2000	V
Operating Temperature	T <sub>opr</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40~ +90	°C
Soldering Temperature	T <sub>sol</sub>	Reflow Soldering : 260 °C for 10 sec. Hand Soldering : 350 °C for 3 sec.	

**Electro-Optical Characteristics @ Ta=25°C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I <sub>v</sub>	90	-----	225	mcd	I <sub>F</sub> =20mA
Viewing Angle	2θ 1/2	-----	130	-----	deg	I <sub>F</sub> =20mA
Peak Wavelength	λ <sub>p</sub>	-----	575	-----	nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>	569.5	-----	577.5	nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	△λ	-----	20	-----	nm	I <sub>F</sub> =20mA
Forward Voltage	V <sub>F</sub>	3.50	-----	4.70	V	I <sub>F</sub> =20mA
Reverse Current	I <sub>R</sub>	-----	-----	10	uA	V <sub>R</sub> =5V

**Notes:**

- 1.Tolerance of Luminous Intensity ±11%
- 2.Tolerance of Dominant Wavelength ±1nm

**94-22/G6C-AQ2S1**
**Bin Range Of Dominant Wavelength**

Bin Code	Min.	Max.	Unit	Condition
C16	569.5	571.5	nm	I <sub>F</sub> =20mA
C17	571.5	573.5		
C18	573.5	575.5		
C19	575.5	577.5		

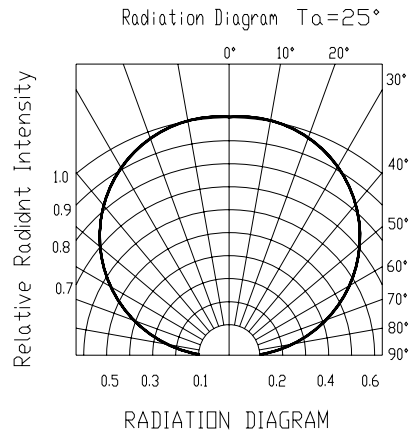
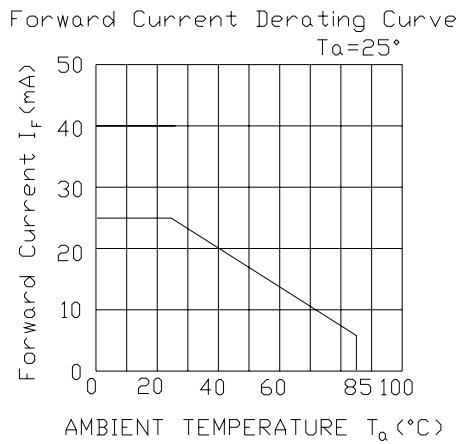
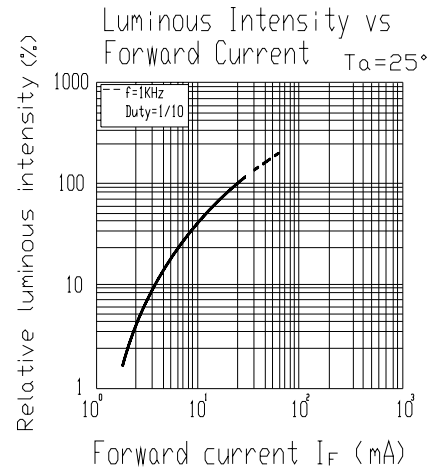
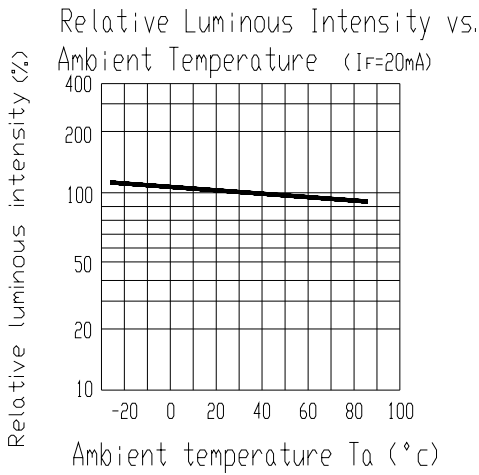
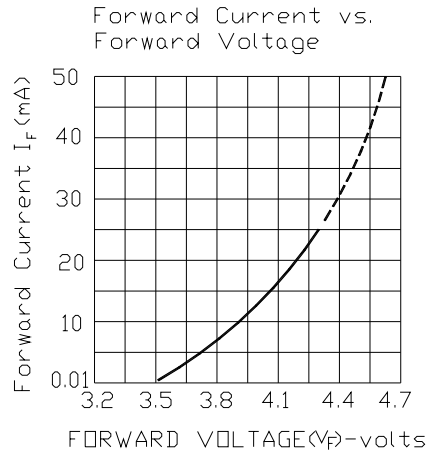
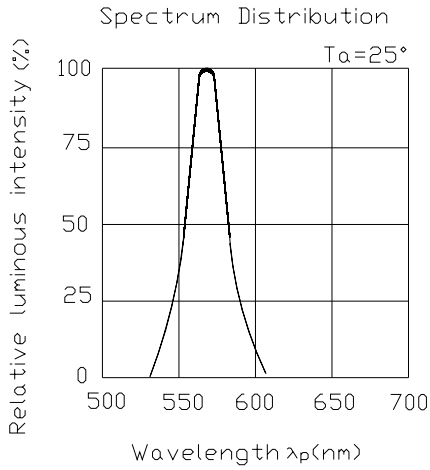
**Bin Range Of Luminous Intensity**

Bin Code	Min.	Max.	Unit	Condition
Q2	90	112	mcd	I <sub>F</sub> =20mA
R1	112	140		
R2	140	180		
S1	180	225		

**Notes:**

- 1.Tolerance of Luminous Intensity  $\pm 11\%$
- 2.Tolerance of Dominant Wavelength  $\pm 1\text{nm}$

**Typical Electro-Optical Characteristics Curves**

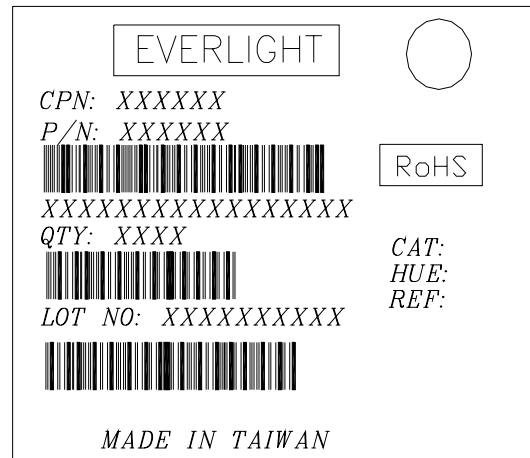


**Label explanation**

**CAT: Luminous Intensity Rank**

**HUE: Dom. Wavelength Rank**

**REF: Forward Voltage Rank**



**Reliability Test Items And Conditions**

The reliability of products shall be satisfied with items listed below.

Confidence level : 90%

LTPD : 10%

No.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Re
1	Soldering Heat	Temp. : 260°C ±5°C Min. 5 sec.	6 Min.	22 PCS.	0/1
2	Temperature Cycle	H : +100°C 15min ∫ 5 min L : -40°C 15min	300 Cycles	22 PCS.	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	300 Cycles	22 PCS.	0/1
4	High Temperature Storage	Temp. : 100°C	1000 Hrs.	22 PCS.	0/1
5	Low Temperature Storage	Temp. : -40°C	1000 Hrs.	22 PCS.	0/1
6	DC Operating Life	I <sub>F</sub> = 20 mA / 25°C	1000 Hrs.	22 PCS.	0/1
7	High Temperature / High Humidity	85°C/85%RH	1000 Hrs.	22 PCS.	0/1

## Precautions For Use

### 1. Over-current-proof

Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change ( Burn out will happen ).

### 2. Storage

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package: The LEDs should be kept at 30°C or less and 90%RH or less.

2.3 After opening the package: The LED's floor life is 1 year under 30°C or less and 60% RH or less.

If unused LEDs remain, it should be stored in moisture proof packages.

2.4 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions.

Baking treatment : 60±5°C for 24 hours.

### 3.Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350°C for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

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