

## Technical Data Sheet

# 5 mm Cylindriccal Shape

**423-2ASUGC /S400-A6**

### Features

- High ligh output.
- I.C compatible.
- Available on tape and reel.
- Reliable and robust.
- Most radial lead plastic LED lamp available

Packed in tape and reel

- Reel package simplifies handling and treating
- ESD-withstand voltage: up to 4KV
- The product itself will remain within RoHS compliant version.



### Descriptions

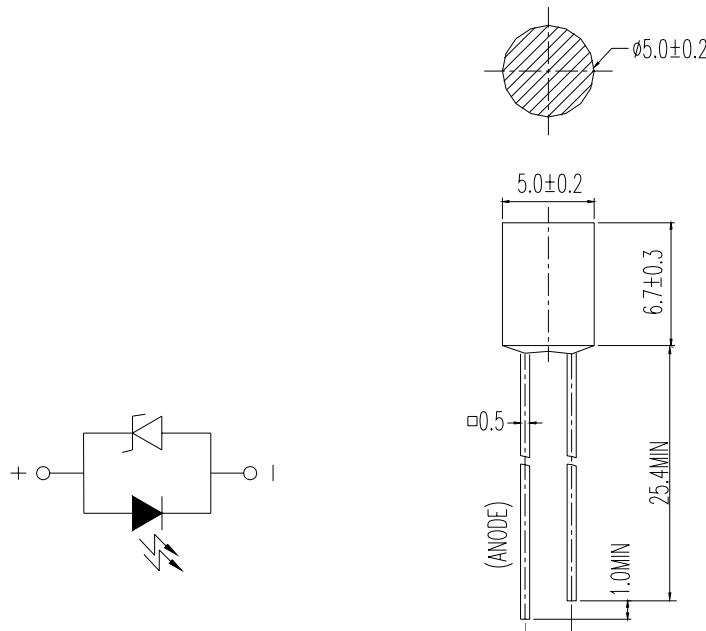
- The series is specially designed for applications requiring higher brightness
- The LED lamps are available with different colors,intensities,epoxy colors, etc.

### Applications

- TV set
- Monitor
- Telephone
- Computer

### Device Selection Guide

Chip		Lens Color
Material	Emitted Color	
InGaN	Super Green	Water Clear

**Technical Data Sheet****5 mm Cylindriccal Shape****423-2ASUGC /S400-A6****Package Dimensions****Notes:**

- All dimensions are in millimeters, tolerance is 0.25mm except being specified.
- Lead spacing is measured where the lead emerges from the package.
- Protruded resin under flange is 1.5mm Max LED.

**Absolute Maximum Ratings (Ta=25°C)**

Parameter	Symbol	Rating	Units
Forward Current	I <sub>F</sub>	30	mA
Pulse Forward Current(Duty1/10@ 1KHz)	I <sub>FP</sub>	100	mA
Operating Temperature	T <sub>opr</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Electrostatic Discharge	ESD	4K	V
Soldering Temperature <sup>*2</sup>	T <sub>sol</sub>	260 ±5	°C
Power Dissipation	P <sub>d</sub>	110	mW
Zener Reverse Current	I <sub>Z</sub>	100	mA

**Notes:** Soldering time  $\leq$  5 seconds.



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#### Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	--	3.4	4.1	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	----	50	uA	μA
Zener Reverse Voltage	V <sub>Z</sub>	I <sub>Z</sub> =5mA	5.2	--	--	V
Luminous Intensity	I <sub>V</sub>	I <sub>F</sub> =20mA	360	565	--	mcd
Viewing Angle	2θ 1/2	I <sub>F</sub> =20mA	--	85	--	deg
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =20mA	--	525	--	nm
Dominant Wavelength	λ <sub>D</sub>	I <sub>F</sub> =20mA	--	530	--	nm
Spectrum Radiation Bandwidth	Δ λ	I <sub>F</sub> =20mA	--	35	--	nm

#### Rank Combination (I<sub>F</sub>=20mA)

Rank	F	G	H	J
Luminous Intensity	450~565	565~715	715~900	900~1125

\*Measurement Uncertainty of Luminous Intensity: ±15%

Unit: :mcd

Ranks	S	T	U	V	W
Forward Voltage	3.1~3.3	3.3~3.5	3.5~3.7	3.7~3.9	3.9~4.1

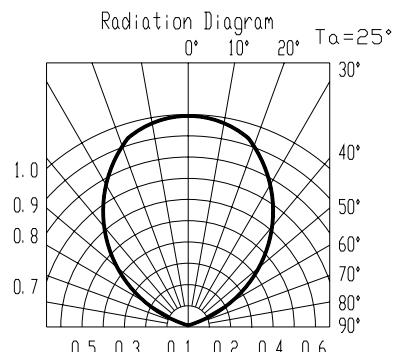
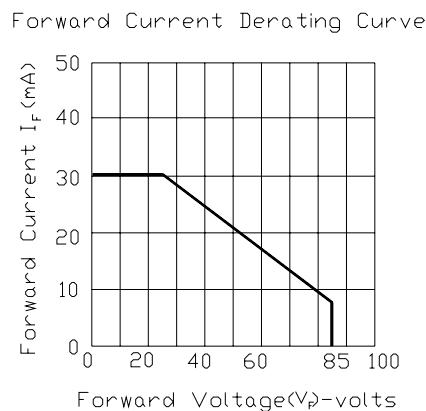
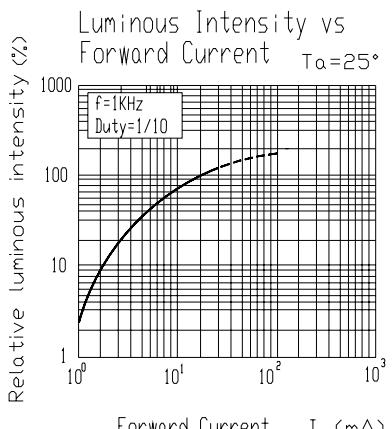
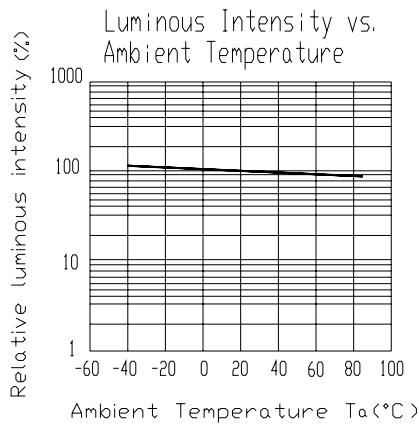
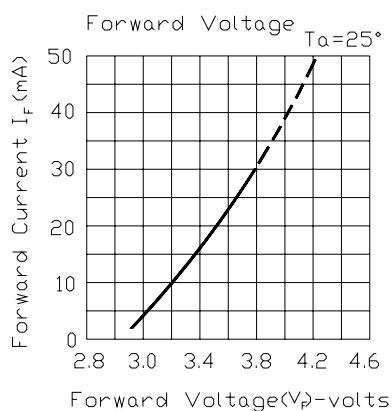
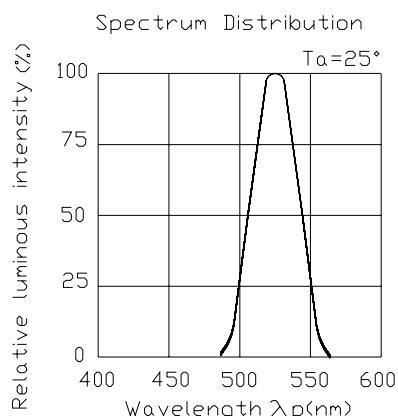
\*Measurement Uncertainty of Forward Voltage: ±0.1V

Unit:V

Rank	3	4	5
Dominant Wavelength	520~524	524~528	528~532

\*Measurement Uncertainty of Dominant Wavelength ±1.0nm

Unit:nm

**Technical Data Sheet****5 mm Cylindriccal Shape****423-2ASUGC /S400-A6****Typical Electro-Optical Characteristics Curves**



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## Technical Data Sheet

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### Packing Quantity Specification

1.500PCS/1Bag , 5Bags/1Box

2.10Boxes/1Carton

### Label Form Specification



CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks of Luminous Intensity and Forward Voltage

HUE: Ranks of Dominant Wavelength

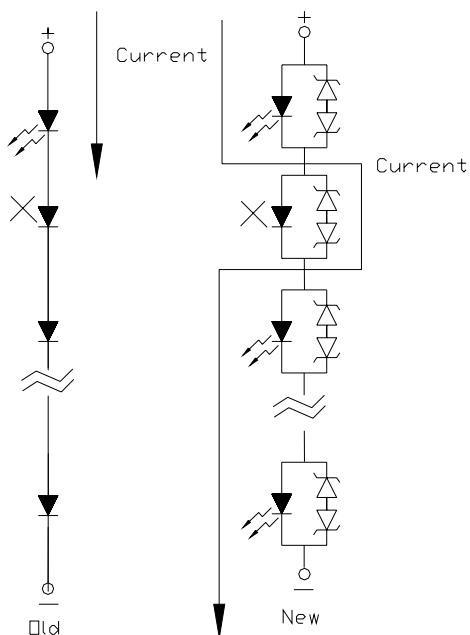
REF: Reference

LOT No: Lot Number

MADE IN TAIWAN: Production Place

**Technical Data Sheet****5 mm Cylindriccal Shape****423-2ASUGC /S400-A6****Notes**

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
3. These specification sheets include materials protected under copyright of EVERLIGHT corporation. Please don't reproduce or cause anyone to reproduce them without EVERLIGHT's consent.
4. Below the zener reference voltage  $V_z$ , all the current flows through LED and as the voltage rises to  $V_z$ , the zener diode "breakdown." If the voltage tries to rise above  $V_z$  current flows through the zener branch to keep the voltage at exactly  $V_z$ .
5. When the LED is connected using serial circuit, if either piece of LED is no light up but current can't flow through causing others to light down. In new design, the LED is parallel with zener diode. if either piece of LED is no light up but current can flow through causing others to light up





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### 6. Soldering Condition

Careful attention should be paid during soldering. When soldering, leave more then 3mm from solder joint to case, and soldering beyond the base of the tie bar is recommended.

Avoiding applying any stress to the lead frame while the LEDs are at high temperature particularly when soldering.

Recommended soldering conditions:

Hand Soldering		DIP Soldering	
Temp. at tip of iron	400°C Max. (30W Max.)	Preheat temp.	100°C Max. (60 sec Max.)
Soldering time	3 sec Max.	Bath temp.	265 Max.
Distance	3mm Min.(From solder joint to case)	Bath time.	5 sec Max.
		Distance	3mm Min.

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