

Part No. **AL-513UY4C-002**

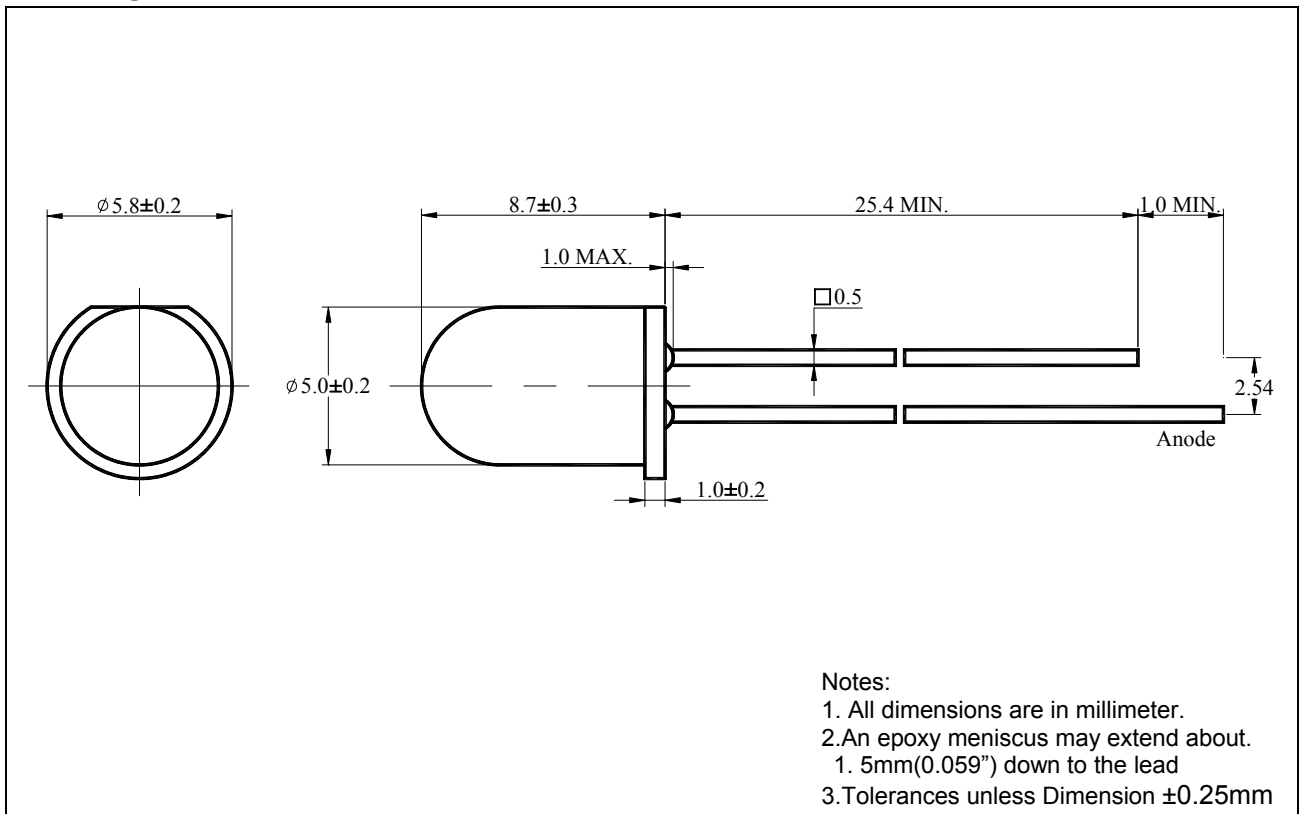
Diff No. 002

5 mm

Round

Type : LED Lamps

Package Dimension :



■ Features :

- Choice of various viewing angle.
- Available on Tape and Reel.
- Reliable and robust.

■ Descriptions :

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

■ Applications :

- TV set
- Monitor
- Telephone

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PART NO.	Chip		Lens Color
	Material	Emitted Color	
AL-513UY4C-002	AlGaInP	Super Deep Yellow	Water Clear

■ Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Forward Current	I _F	50	mA
Operating Temperature	T _{opr}	-40 to +85	°C
Storage Temperature	T _{stg}	-40 to +85	°C
Soldering Temperature	T _{sol}	260 ± 5	°C
Electrostatic Discharge	ESD	1000	V
Power Dissipation	P _D	120	mW
Peak Forward Current (Duty 1/10@1KHz)	I _F (Peak)	100	mA
Reverse Voltage	V _R	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _v	9300	14000	/	mcd	I _F =20mA
Viewing Angle	2θ _{1/2}	/	15	/	deg	I _F =20mA
Peak Wavelength	λ _p	/	595	/	nm	I _F =20mA
Dominant Wavelength	λ _d	/	592	/	nm	I _F =20mA
Spectrum Radiation Bandwidth	Δλ	/	20	/	nm	I _F =20mA
Forward Voltage	V _F	/	2.0	2.4	V	I _F =20mA
Reverse Current	I _R	/	/	10	μA	V _R =5V

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■ Reliability test items and conditions :

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Reflow Soldering	TEMP : 240±5°C 5sec	6 Min.	22 PCS	0/1
2	Temperature Cycle	H : +100°C 15min └ 5min L : -40°C 15min	300 CYCLES	22 PCS	0/1
3	Thermal Shock	H : +100°C 5min └ 10set 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 _F =20mA	1000 HRS	22 PCS	0/1
7	High Temperature / High Humidity	85°C / 85%RH	1000 HRS	22 PCS	0/1

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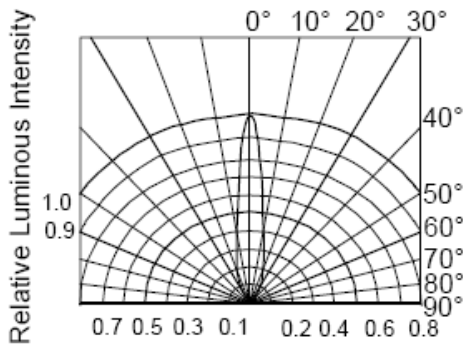
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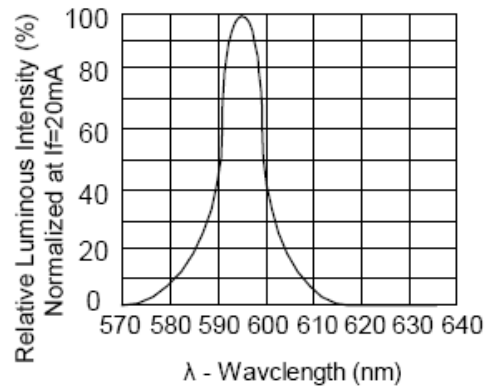
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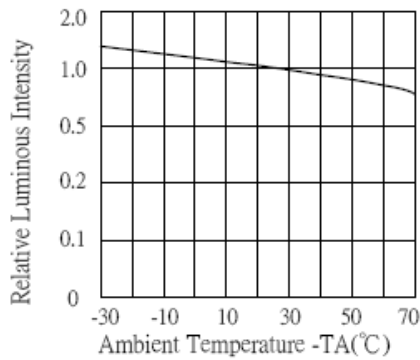
■ Typical Optical-Electrical Characteristic Curves :



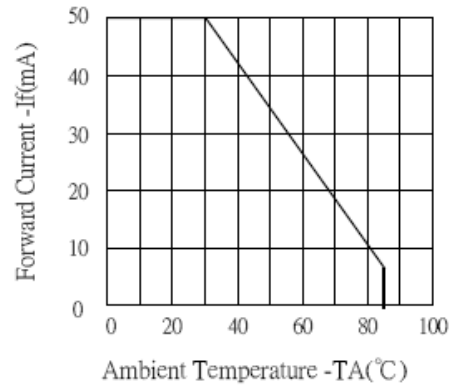
RADIATION DIAGRAM



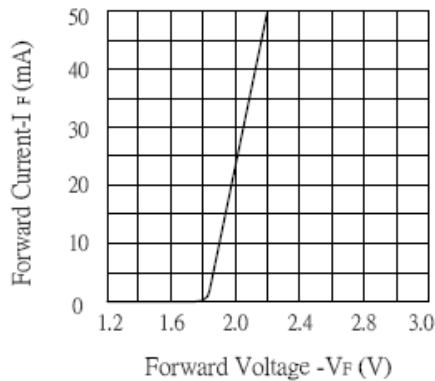
RELATIVE LUMINOUS INTENSITY Vs. WAVELENGTH



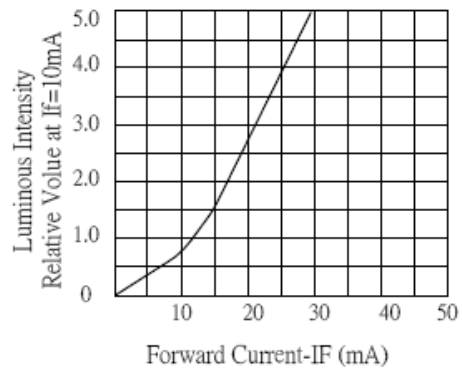
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT