

Part No.

AL-513W6C-002

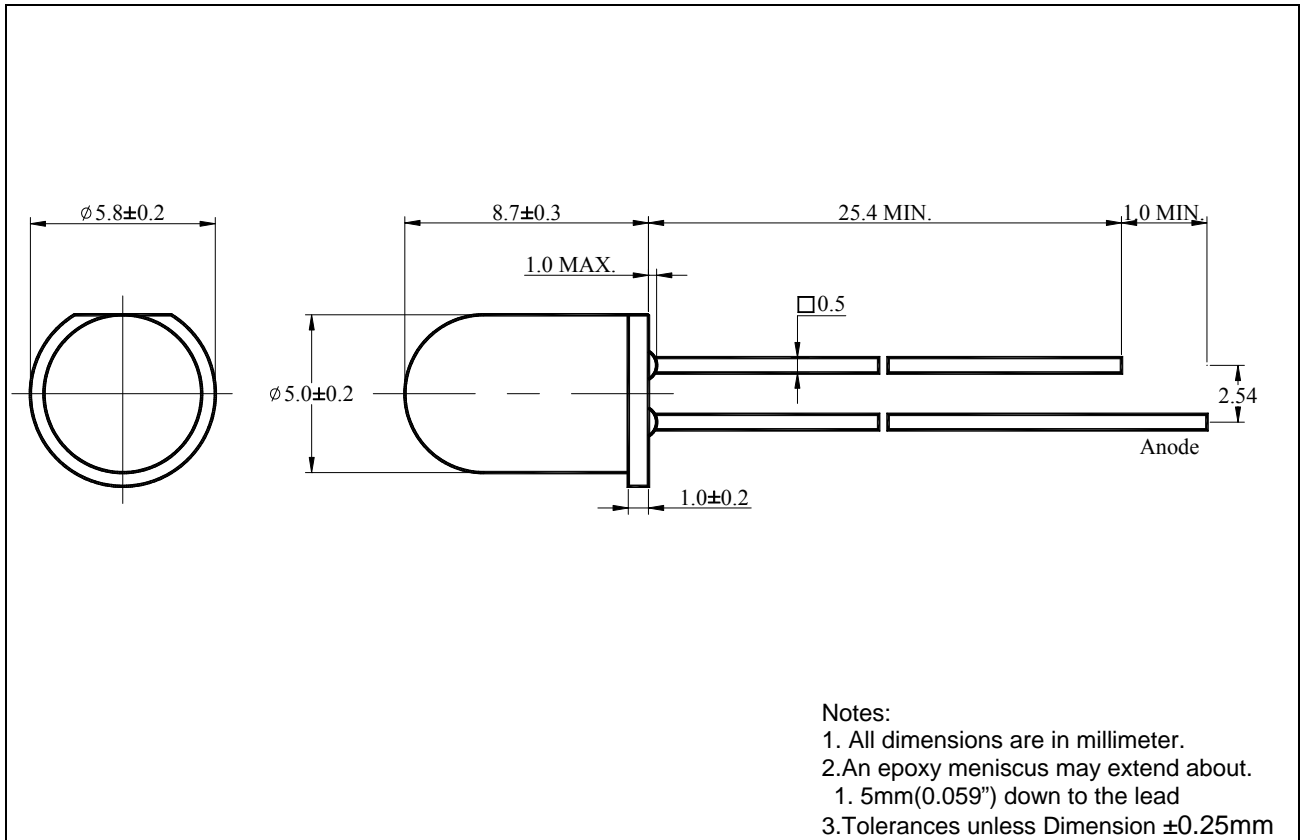
Diff No. 002

5 mm

Round

Type : LED Lamps

Package Dimension :



■ Features :

- Choice of various viewing angles.
- 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 color, intensities, epoxy colors etc.

■ Applications :

- TV set
- Monitor
- Telephone

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Type : LED Lamps

PART NO.	Chip		Lens Color
	Material	Emitted Color	
AL-513W6C-002	InGaN	White	Water Clear

■ Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Forward Current	I _F	30	mA
Operating Temperature	T _{opr}	-40 to +85	°C
Storage Temperature	T _{stg}	-40 to +100	°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	22000	33000	/	mcd	I _F =20mA
Viewing Angle	2θ _{1/2}	/	15	/	deg	I _F =20mA
Chromatically Coordinates	X	/	0.31	/	/	I _F =20mA
	Y	/	0.32	/	/	
Forward Voltage	V _F	/	3.2	3.8	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	Solder Heat	TEMP : 260°C ± 5°C	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85°C 30min ┆ 5min L : -55°C 30min	50 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min ┆ 10set L : -10°C 5min	50 CYCLES	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	TEMP : 25°C I _F =20mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C / 85%RH	1000 HRS	76 PCS	0/1

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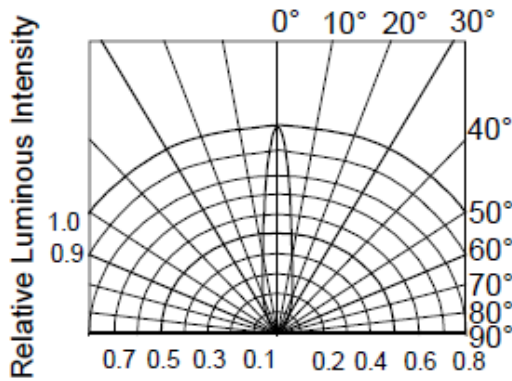
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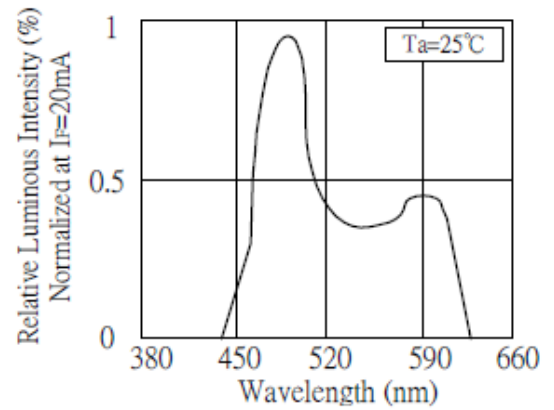
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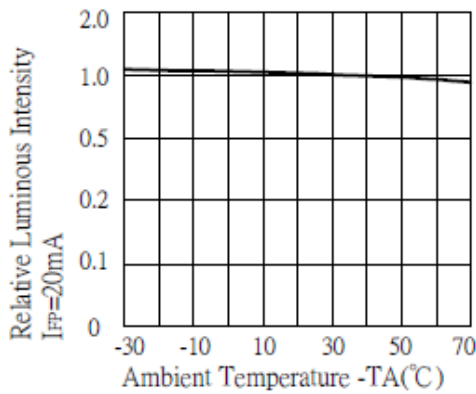
■ Typical Characteristics (The data typical, and the value is not guaranteed.)



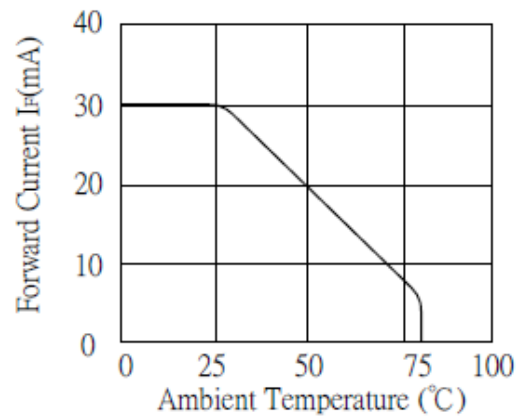
RADIATION DIAGRAM



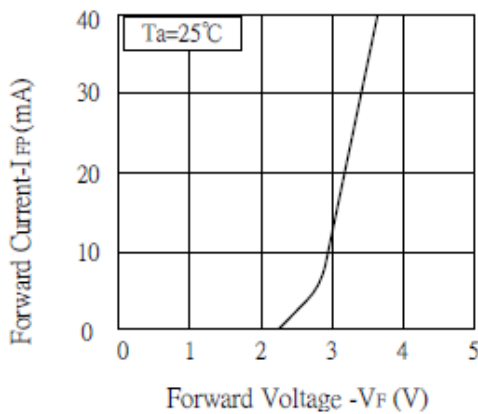
RELATIVE LUMINOUS INTENSITY Vs. WAVELENGTH



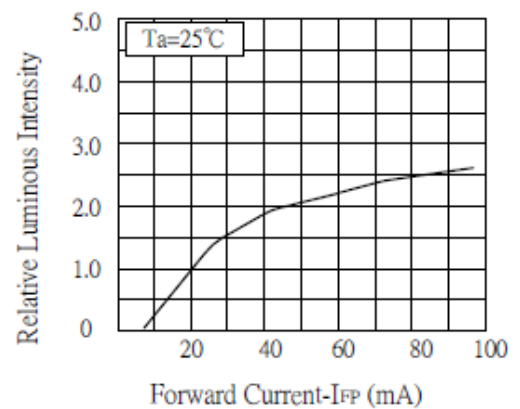
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



MAX FORWARD CURRENT Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT