

Part No. AL-513GT

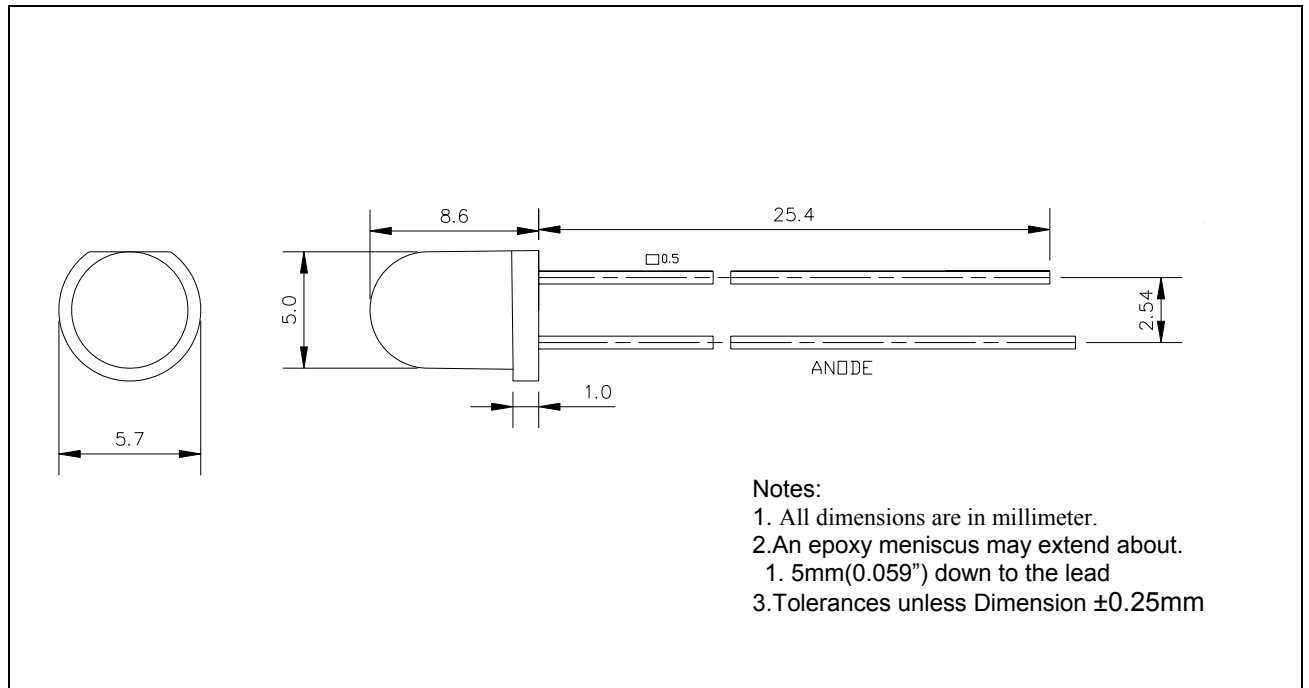
Diff No.

5 mm

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 colors, intensity, epoxy colors etc.

**■ Applications:**

- TV set
- Monitor
- Telephone

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PART NO.	Chip		Lens Color
	Material	Emitted Color	
AL-513GT	GaP	YELLOW/GREEN	Color Transparent

■ Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Forward Current	IF	30	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ±5	°C
Electrostatic Discharge	ESD	1000	V
Power Dissipation	Pd	100	mW
Peak Forward Current (Duty 1/10@1KHz)	IF(Peak)	160	mA
Reverse Voltage	VR	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	IV	2.0	10.0	/	mcd	IF=20mA
Viewing Angle	2θ 1/2	/	36	/	deg	IF=20mA
Peak Wavelength	λ p	/	568	/	nm	IF=20mA
Dominant Wavelength	λ d	/	570	/	nm	IF=20mA
Spectrum Radiation Bandwidth	△ λ	/	30	/	nm	IF=20mA
Forward Voltage	VF	/	2.1	2.4	V	IF=20mA

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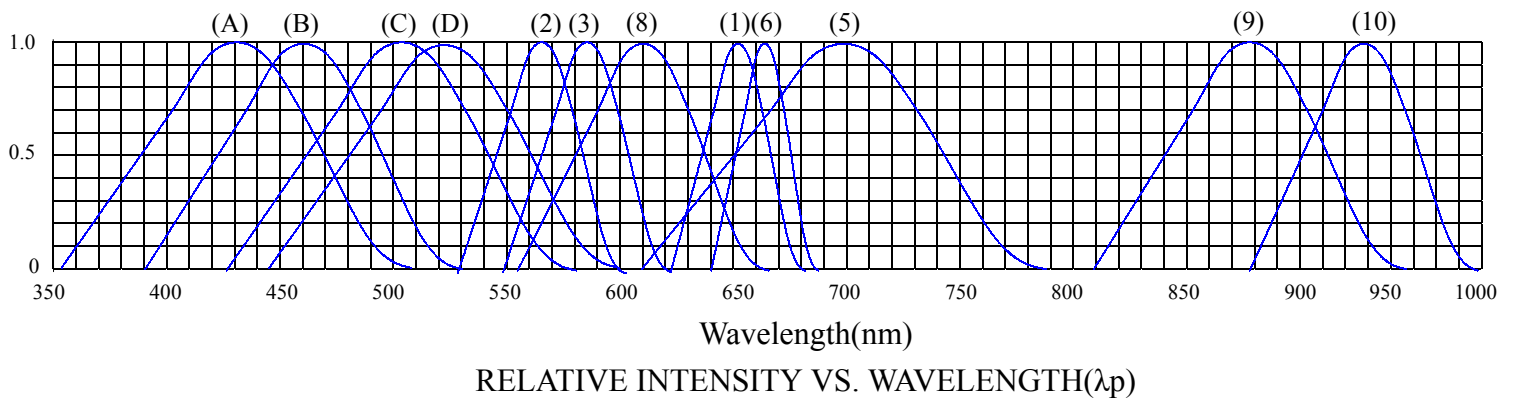
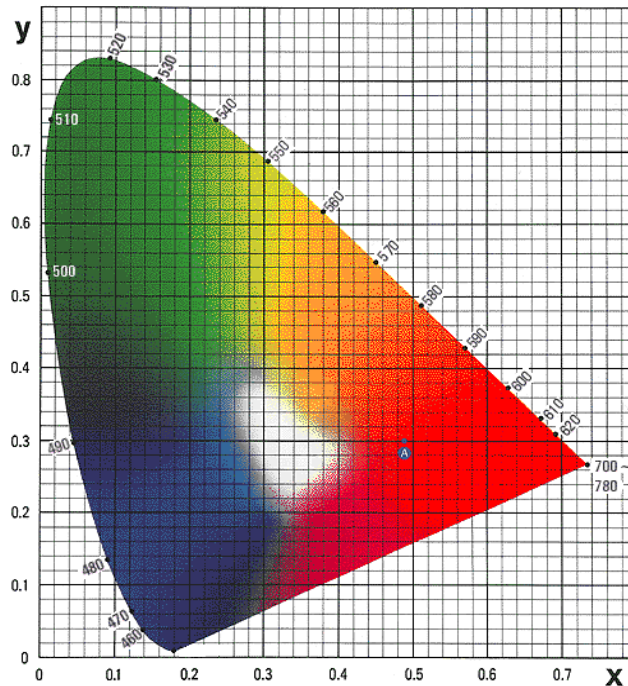
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Reliability test items and conditions :

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 IF=20mA	1000 HRS	76 PCS	0/1
7	High Temperature/High Humidity	85°C/85%RH	1000 HRS	76 PCS	0/1

◆ TYPICAL ELECTRICAL-OPTICAL CHARACTERISTICS CURVES

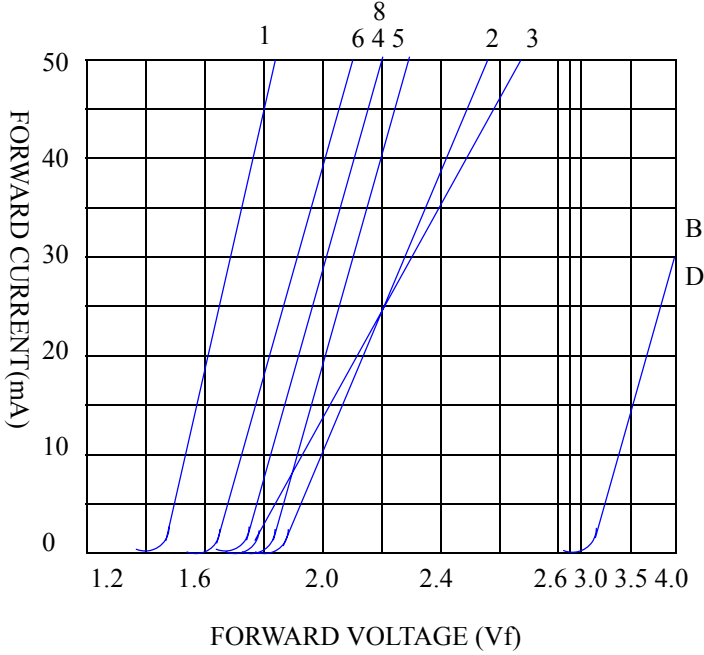


- (1) GaAsP/GaAs 655nm/Red
- (2) GaP 568nm/ Yellow Green
- (3) GaAsP/GaP 585nm/Yellow
- (4) GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) GaP 700nm/Bright Red
- (6) GaAlAs/GaAs 660nm/Super Red
- (8) GaAsP/GaP 610nm/Super Red

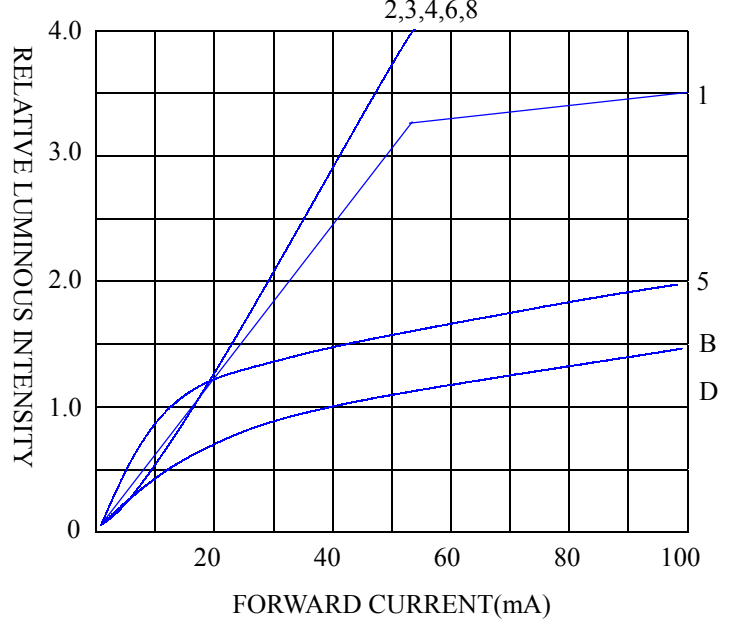
- (9)- GaAlAs 880nm
- (10)-GaAs/GaAs&GaAlAs/GaAs 940nm
- (A)- GaN 430nm/Blue
- (B)- InGaN 470nm/Blue
- (C)- InGaN 502nm/Ultra Green
- (D)- InGaN 523nm/Ultra Green

## ◆ CHARACTERISTICS DIAGRAMS

FORWARD CURRENT VS. FORWARD VOLTAGE



RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



FORWARD CURRENT VS. AMBIENT TEMPERATURE

