

Part No.

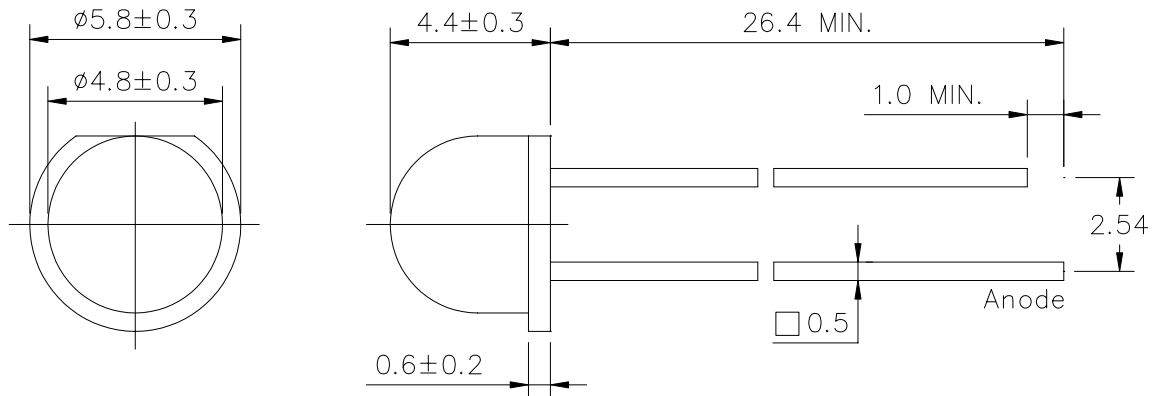
**AL-P483OR1C**

Diff No.

4.8 mm

Type : LED Lamps

Package Dimension :



Notes:

1. All dimensions are in millimeter.
2. An epoxy meniscus may extend about.
  1. 5mm(0.059") down to the lead
3. Tolerances unless Dimension  $\pm 0.25\text{mm}$

■ 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-P483OR1C	AlGaInP	Red	Water Clear

■ Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Forward Current	I <sub>F</sub>	20	mA
Operating Temperature	T <sub>opr</sub>	-20 to +85	°C
Storage Temperature	T <sub>stg</sub>	-40 to +100	°C
Soldering Temperature	T <sub>sol</sub>	260 ± 5	°C
Electrostatic Discharge	ESD	1000	V
Power Dissipation	P <sub>D</sub>	100	mW
Peak Forward Current (Duty 1/10@1KHz)	I <sub>F</sub> (Peak)	100	mA
Reverse Voltage	V <sub>R</sub>	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I <sub>v</sub>	200	250	/	mcd	I <sub>F</sub> =20mA
Viewing Angle	2θ <sub>1/2</sub>	/	75	/	deg	I <sub>F</sub> =20mA
Peak Wavelength	λ <sub>p</sub>	/	630	/	nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>	/	625	/	nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	Δλ	/	30	/	nm	I <sub>F</sub> =20mA
Forward Voltage	V <sub>F</sub>	/	2.2	2.5	V	I <sub>F</sub> =20mA
Reverse Current	I <sub>R</sub>	/	/	10	μA	V <sub>R</sub> =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	5SEC	76PCS	0/1
2	Temperature Cycle	H : +85°C 30min ┆ 5min L : -55°C 30min	50CYCLES	76PCS	0/1
3	Thermal Shock	H : +100°C 5min ┆ 10sec L : -10°C 5min	50CYCLES	76PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000HRS	76PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000HRS	76PCS	0/1
6	DC Operating Life	TEMP : 25°C I <sub>F</sub> =20mA	1000HRS	76PCS	0/1
7	High Temperature / High Humidity	85°C / 85%RH	1000HRS	76PCS	0/1

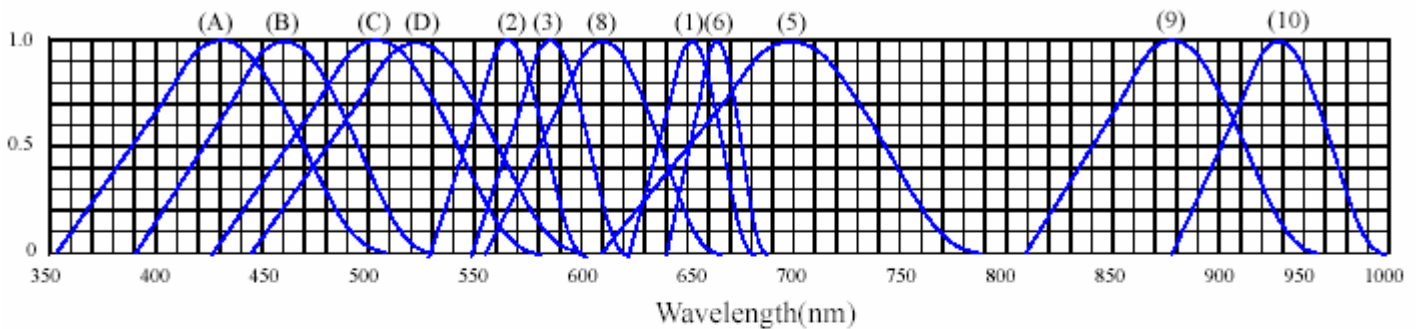
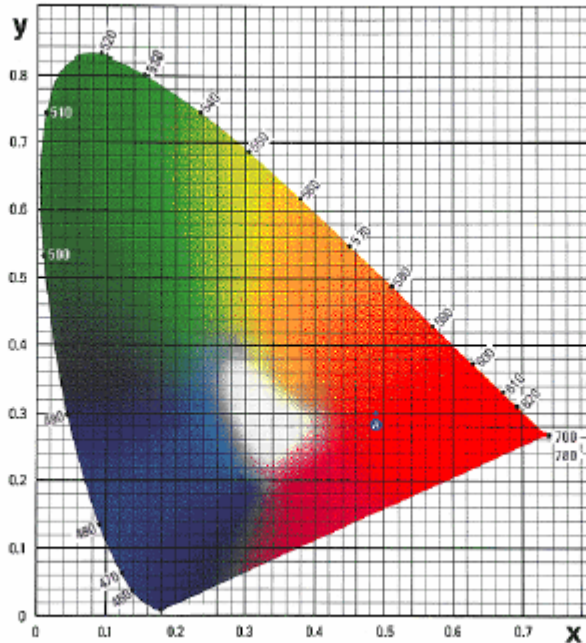
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◆ TYPICAL ELECTRICAL-OPTICAL CHARACTERISTICS CURVES



RELATIVE INTENSITY VS. WAVELENGTH( $\lambda_p$ )

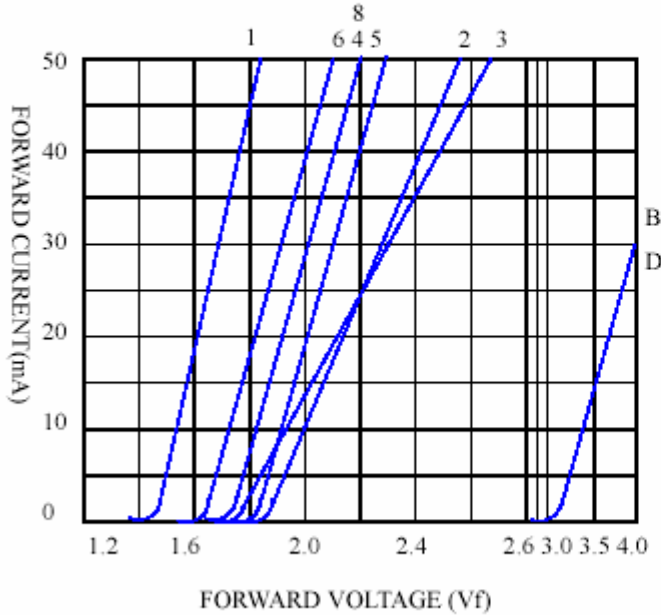
- |   |                                  |
|---|----------------------------------|
| (1) GaAsP/GaAs 655nm/Red                | (9)- GaAlAs 880nm                |
| (2) GaP 568nm/ Yellow Green             | (10)-GaAs/GaAs&GaAlAs/GaAs 940nm |
| (3) GaAsP/GaP 585nm/Yellow              | (A)- GaN 430nm/Blue              |
| (4) GaAsP/GaP 635nm/Orange & Hi-Eff Red | (B)- InGaN 470nm/Blue            |
| (5) GaP 700nm/Bright Red                | (C)- InGaN 502nm/Ultra Green     |
| (6) GaAlAs/GaAs 660nm/Super Red         | (D)- InGaN 523nm/Ultra Green     |
| (8) GaAsP/GaP 610nm/Super Red           |                                  |

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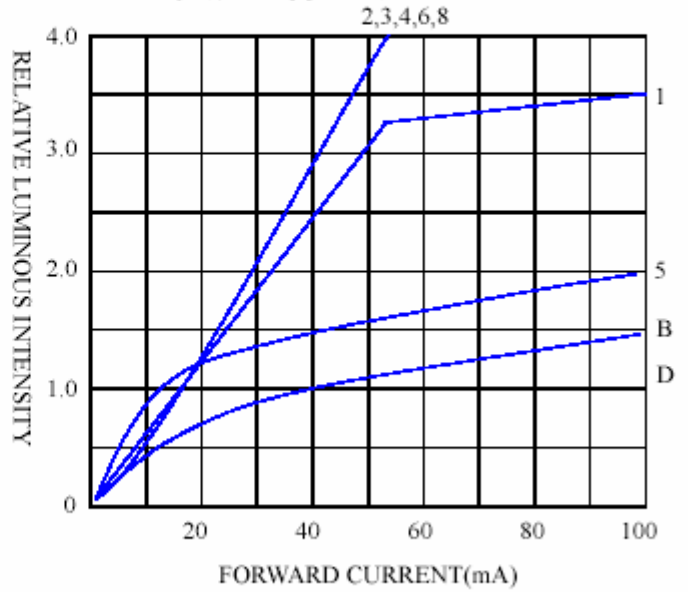
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◆ CHARACTERISTICS DIAGRAMS

FORWARD CURRENT VS. FORWARD VOLTAGE



RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



FORWARD CURRENT VS. AMBIENT TEMPERATURE

