

BEELED

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MODEL: 7306R2G3B2C-ESA-S

Features

- Choice of various viewing angles.
- Available on Tape and Reel.
- Reliable and robust.
- Slow flash type
- Pb free



Descriptions

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



Usage Notes:

- The ultra bright LED is an electrostatic insensitive device, so static electricity and surge will damage the LED. It is required to wear a wrist-band when handling the LED. All device, equipment, machinery, desk and ground must be properly grounded
- When using LED, it must use a protective resistor in series with DC current about 20Ma

Applications

- TV set
- Monitor
- Telephone

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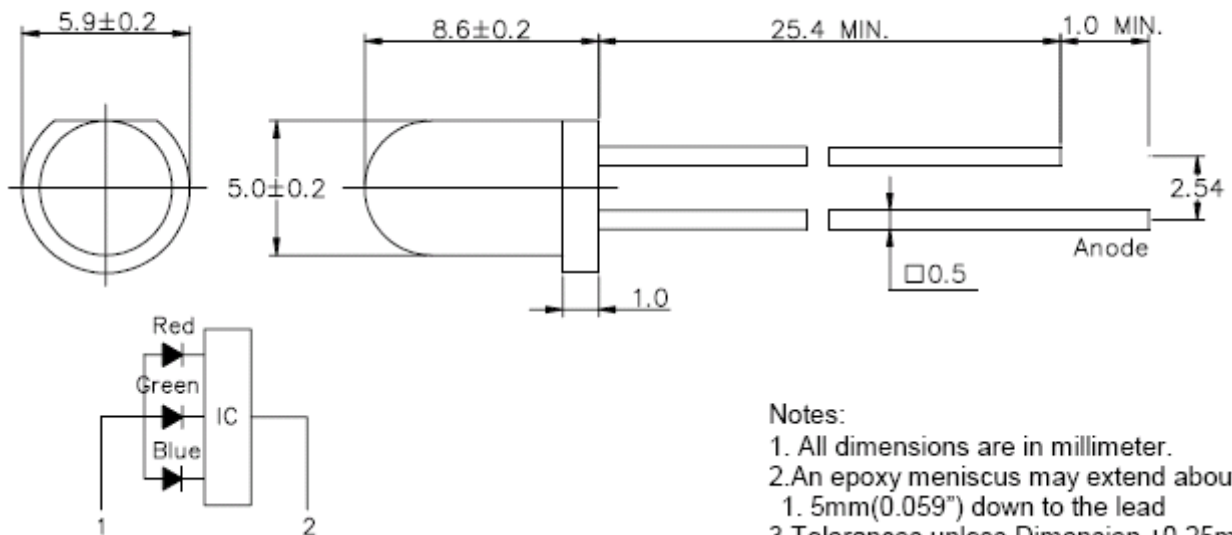
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Device Selection Guide

LED Part No.	Chip		Lens Color
	Material	Emitted Color	
7306R2G3B2C-ESA-S	AlGaInP	Red	Water clear
	InGaN	Green	
	InGaN	Blue	

Package

Dimensions



Notes:

- Other dimensions are in millimeters, tolerance is 0.25mm except being specified.
- Protruded resin under flange is 1.5mm Max LED.
- Bare copper alloy is exposed at tie-bar portion after cutting.



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Absolute Maximum Rating ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Pulse Current	I_{FPM}	100	mA
Forward Current	I_{FM}	30	mA
Reverse Voltage	V_{R}	5	V
Operating Temperature	T_{opr}	-40~+80	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~+100	$^{\circ}\text{C}$
Soldering Heat (5s)	T_{sol}	260	$^{\circ}\text{C}$

Electro-Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Device	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_v	Red	800	1000	1200	mcd	IF=20mA
		Green	1500	1800	2000		
		Blue	800	1000	1200		
Viewing Angle	$2\theta_{1/2}$	Red	---	25	30	Deg	(Note 1)
		Green					
		Blue					
Peak Emission Wavelength	λ_p	Red		630		nm	IF=20mA
		Green		525			
		Blue		470			
Spectral Line Half-Width	$\Delta\lambda$	Red		20		nm	IF=20mA
		Green		35			
		Blue		20			
Forward Voltage	V_{F}	Red		2.2	2.6	V	IF=20mA
		Green		3.5	4.0		
		Blue		3.5	4.0		
Cycle	S			30		SEC	IF=20mA

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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

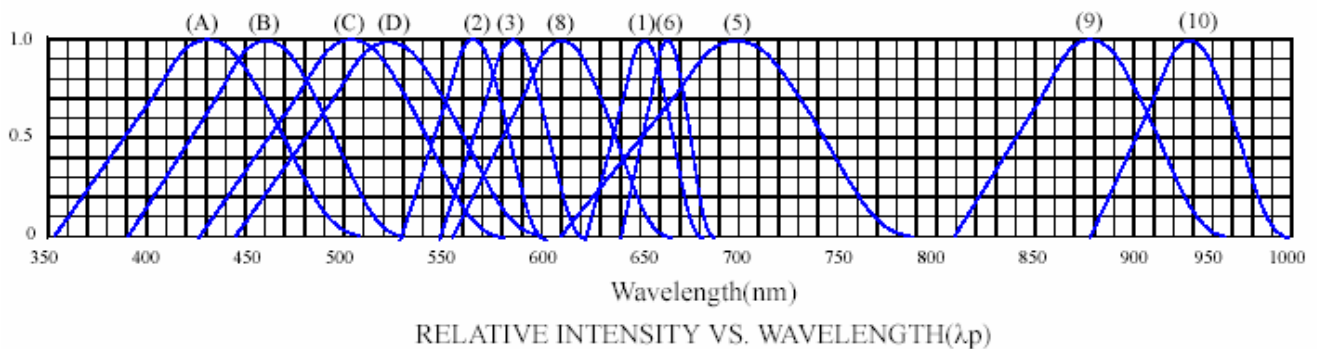
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■ Flashing Mode

Seven Color(R-G-B-RB-BG-GR-RGB) Flash in turn; one fadeout, another fade-in at one time.

■ TYPICAL ELECTRICAL-OPTICAL CHARACTERISTICS CURVES



- | | |
|----------------------------------|----------------------------------|
| (1) GaAsP/GaAs 655nm/Red | (9)- GaAlAs 880nm |
| (2) Gap 568nm/Yellow Green | (10) GaAs/GaAs&GaAlAs/GaAs 940nm |
| (3) GaAsP/Gap585nm Yellow | (A) GaN 430nm/Blue |
| (4) GaAsP/Gap 635nm/ Hi-Eff Red | (B) InGaN 470nm/Blue |
| (5) Gap 700nm/ Bright Red | (C) InGaN502nm/Bluish Green |
| (6) GaAlAs/GaAs 660nm/ Super Red | (D) InGaN525nm/Pure Green |
| (8) GaAsP/GaP 610nm/ Orange | |

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◆ **CHARACTERISTICS DIAGRAMS**

