



HUIYUAN ELECTRONIC CO.,LTD.

## TECHNOLOGY DATA SHEET & SPECIFICATIONS

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MODEL: 7206G3D-ESA-A

### Features

- Electricity control IC embedded
- Fancy, fun, hottest in the market.
- Lens size with 5mm / 8mm / 10mm options
- Viewing Angles 40°..
- Operating voltage range : 3V-5V DC.
- Blinking frequency : 1.8Hz
- Frequency tolerance :  $\pm 20\%$
- RoHS compliant

### Descriptions

- New trend creations
- Low energy consumptions
- Low maintenance costs
- High application design flexibility
- High reliability

### Usage Notes:

- Surge will damage the LED
- When using LED, it must use a protective resistor in series with DC current about 20mA

### Applications

- Toys / sports utilities
- Miniature key chains
- Effect Lights.
- Display / decoration lights .
- Electronic displays and signals
- Interior decoration lights.
- Indicator lights.
- Solar energy lights / garden lights



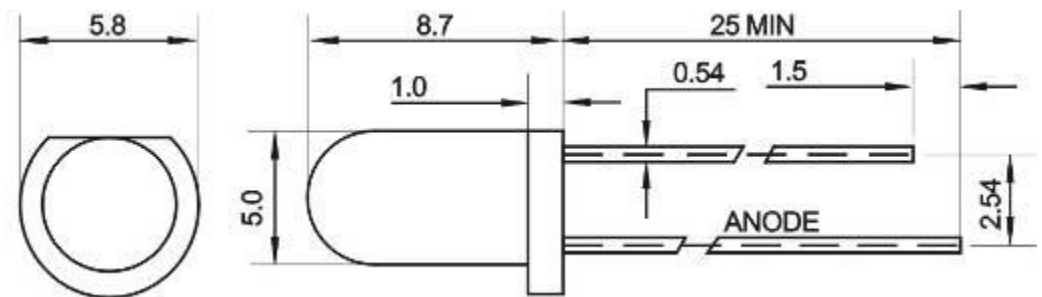
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### Device Selection Guide

LED Part No.	Chip		Lens Color
	Material	Emitted Color	
7206G3D-EHE-A	InGaN	Green	Diffused

### Package Dimensions



UNIT:mm

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

Parameter	Symbol	Absolute Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	$I_{FPM}$	70	mA
Forward Current	$I_{FM}$	30	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	100	mW
Operating Temperature	$T_{opr}$	-40~+80	$^{\circ}\text{C}$
Storage Temperature	$T_{stg}$	-40~+100	$^{\circ}\text{C}$
Soldering Heat (5s)	$T_{sol}$	260	$^{\circ}\text{C}$



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### Electro-Optical Characteristics (T<sub>a</sub>=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I <sub>v</sub>	1500	---	2000	mcd	IF=20mA(Note1 )
Viewing Angle	2θ <sub>1/2</sub>	30	---	40	Deg	(Note 2)
Peak Emission Wavelength	λ <sub>p</sub>	520	525	530	nm	IF=20mA
Spectral Line Half-Width	Δλ	15	20	25	nm	IF=20mA
Turn on time	Duty		1/20		ms	IF=20mA
Blinking Frequency	F <sub>led</sub>		1.8		Hz	IF=20mA
Forward Voltage	V <sub>F</sub>	3.0	---	5.0	V	IF=20mA
Reverse Current	I <sub>R</sub>	---	---	10	μA	VR=5V

### Note:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

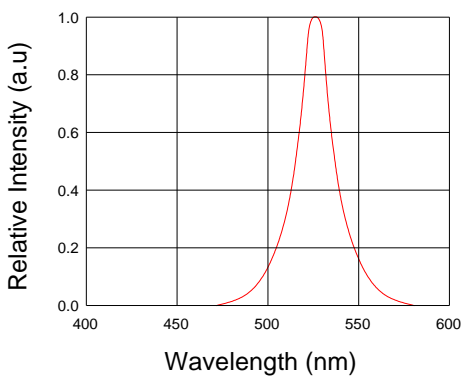


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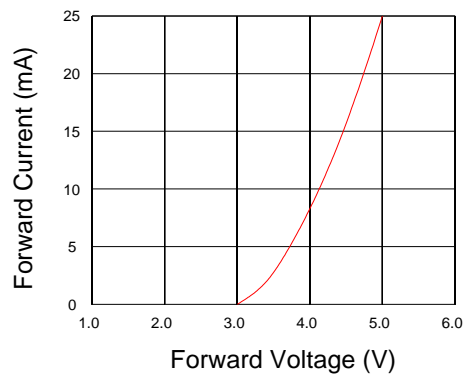
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**Typical Electro-Optical Characteristics Curves**

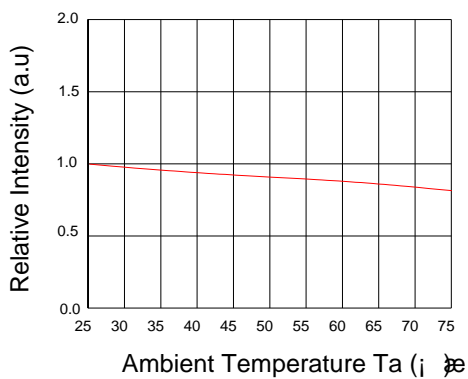
Relative Intensity VS. Wavelength



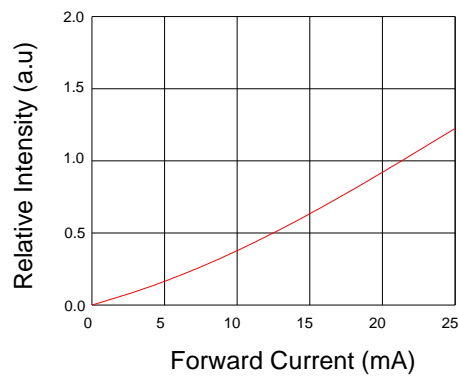
Forward Current VS. Forward Voltage



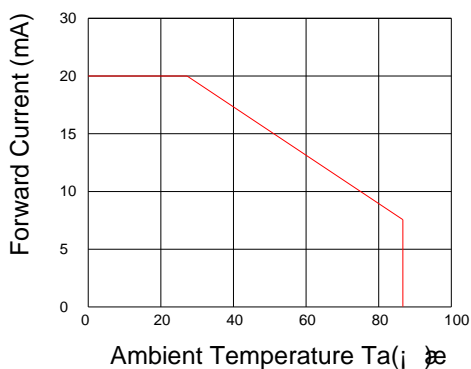
Relative Intensity VS. Ambient Temp



Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics

