

B-2704URPGB

DATA SHEET

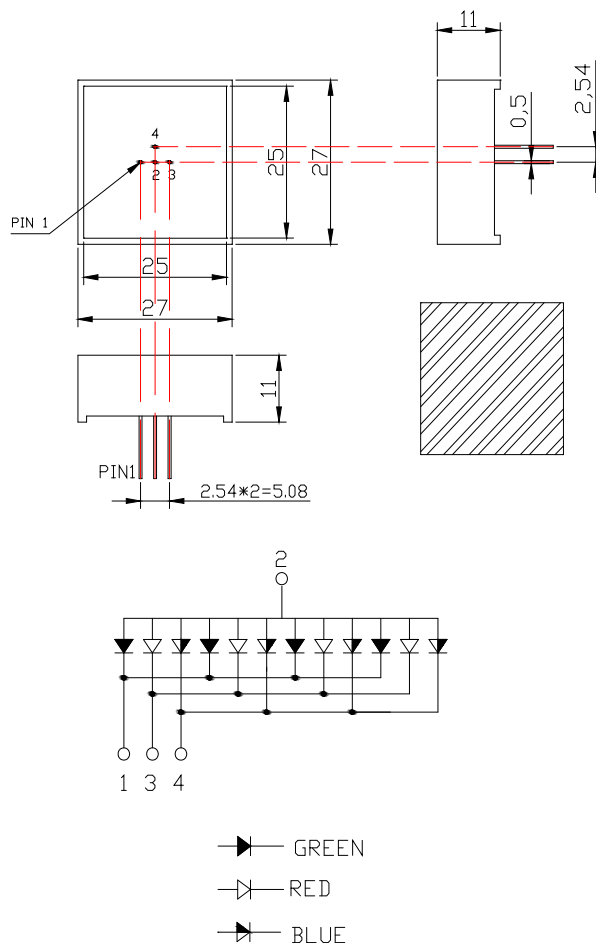
QC :

ENG :

Prepared By:

ROYAL LIGHT ELECTRONICS CO., LTD

Package Dimensions:



Part NO.	Chip Material	Source Color
B-2704URPGB	AlInGap	Super Green
	AlGaInP	Super Bright Red
	GaInN	Blue

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 mm (.010") unless otherwise noted.
3. Specifications are subject to change without notice

Part No.	B-2704URPGB	Spec No.	S/N-03050502D	Page	2 of 8
----------	-------------	----------	---------------	------	--------

ROYAL LIGHT ELECTRONICS CO., LTD

Absolute Maximum Ratings at Ta=25

Parameter	MAX.	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	35	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-40°C to +80°C	
Storage Temperature Range	-40°C to +80°C	
Lead Soldering Temperature [4mm(.157") From Body]	260°C for 5 Seconds	

Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_v	60	100	120	mcd	$I_f=20\text{mA}$ (Note 1)
Peak Emission Wavelength	λ_p	520	525	530	nm	$I_f=20\text{mA}$
Spectral Line Half-Width	$\triangle \lambda$	30	35	40	nm	$I_f=20\text{mA}$
Forward Voltage	V_f	2.8	3.2	4.0	V	$I_f=20\text{mA}$
Reverse Current	I_R	---	---	100	μA	$V_R=5\text{V}$

Notes:

1. Luminous intensity is measured with a light sensor and filter combination that

Part No.	B-2704URPGB	Spec No.	S/N-03050502D	Page	3 of 8
----------	-------------	----------	---------------	------	--------

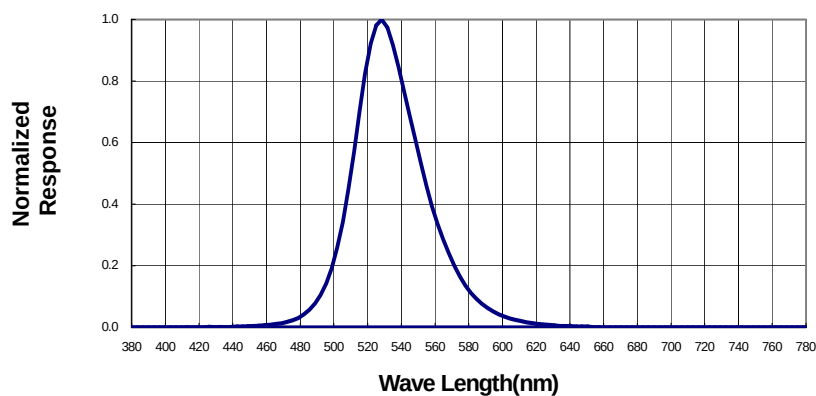
ROYAL LIGHT ELECTRONICS CO., LTD

approximates the CIE eye-response curve.

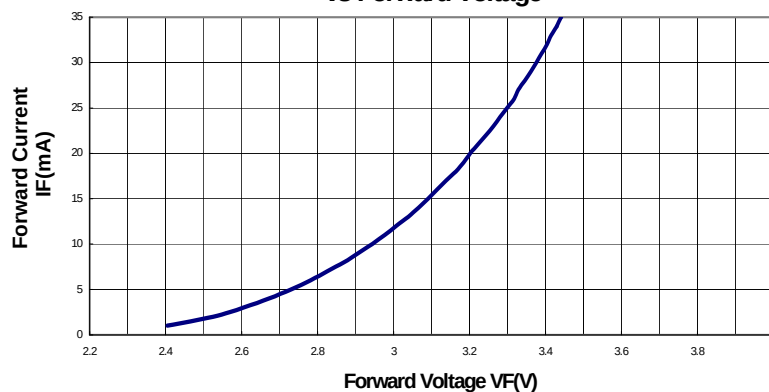
Typical Electrical / Optical Characteristics Curves

25°C Ambient Temperature Unless Otherwise Noted)

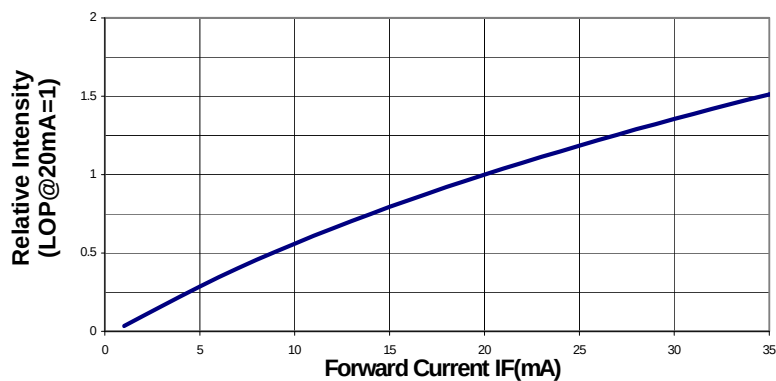
Spectral Radiance (Peak @525nm)



Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



ROYAL LIGHT ELECTRONICS CO., LTD

Absolute Maximum Ratings at Ta=25°C

Parameter	MAX.	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	50	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-40°C to +80°C	
Storage Temperature Range	-40°C to +80°C	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds	

Electrical Optical Characteristics at Ta=25°C

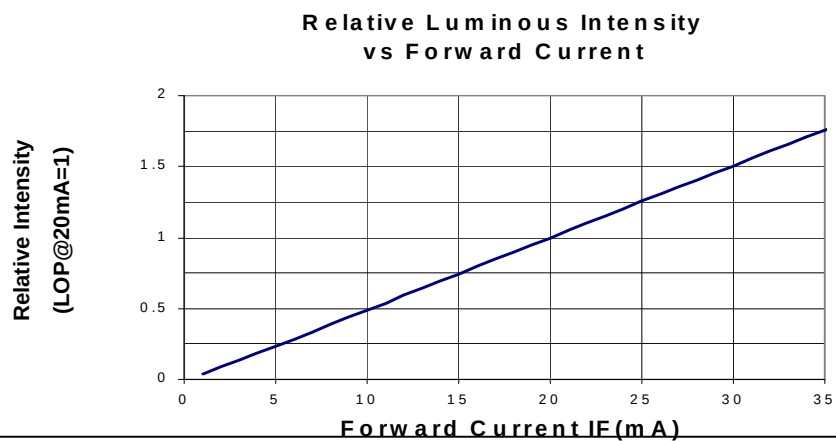
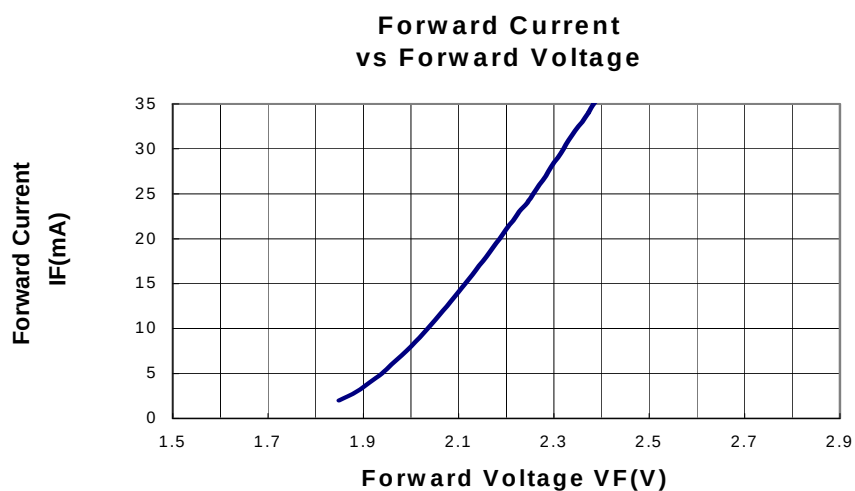
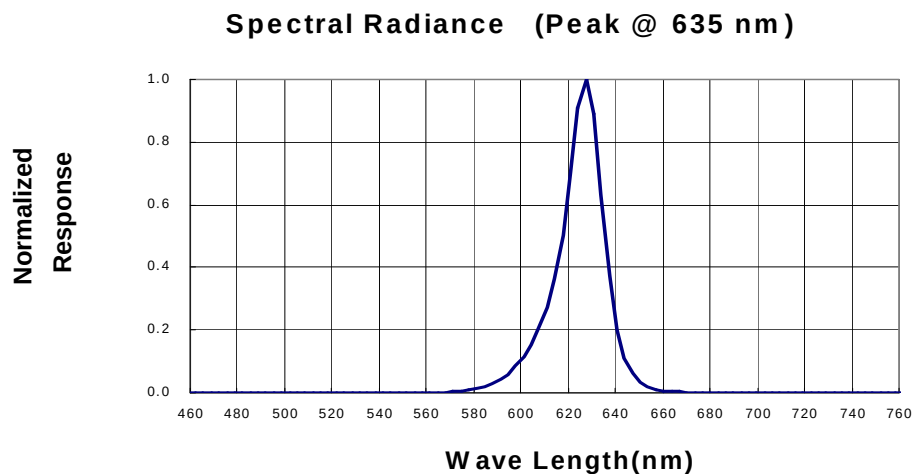
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	50	100	150	mcd	I _f =20mA (Note 1)
Peak Emission Wavelength	λ _p	630	635	640	nm	I _f =20mA
Spectral Line Half-Width	△λ	15	20	25	nm	I _f =20mA
Forward Voltage	V _f	1.8	2.2	2.7	V	I _f =20mA
Reverse Current	I _R	---	---	100	μA	V _R =5V

Notes:

2. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

ROYAL LIGHT ELECTRONICS CO., LTD

Typical Electrical / Optical Characteristics Curves
(25°C Ambient Temperature Unless Otherwise Noted)



ROYAL LIGHT ELECTRONICS CO., LTD

Absolute Maximum Ratings at Ta=25°C

Parameter	MAX.	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	35	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-40°C to +80°C	
Storage Temperature Range	-40°C to +80°C	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds	

Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	30	50	100	mcd	I _F =20mA (Note 1)
Peak Emission Wavelength	λ _p	460	468	472	nm	I _F =20mA
Spectral Line Half-Width	△λ	35	40	45	nm	I _F =20mA
Forward Voltage	V _F	3.0	3.5	4.0	V	I _F =20mA
Reverse Current	I _R	---	---	100	μA	V _R =5V

Note:

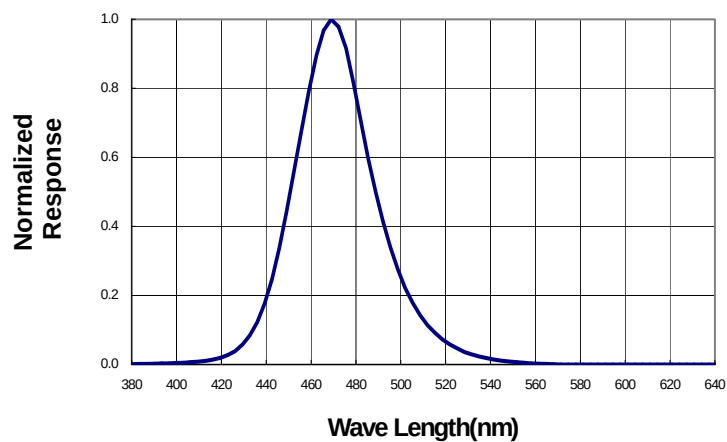
- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

ROYAL LIGHT ELECTRONICS CO., LTD

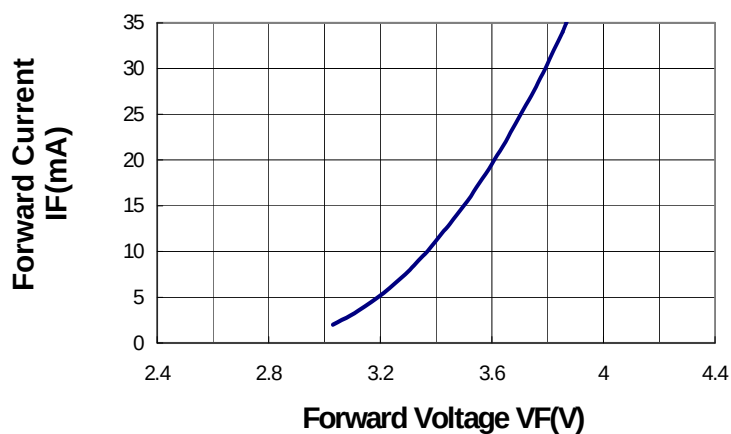
Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

Spectral Radiance (Peak @ 468nm)



**Forward Current
vs Forward Voltage**



**Relative Luminous Intensity
vs Forward Current**

