

GB-224UR2C

DATA SHEET



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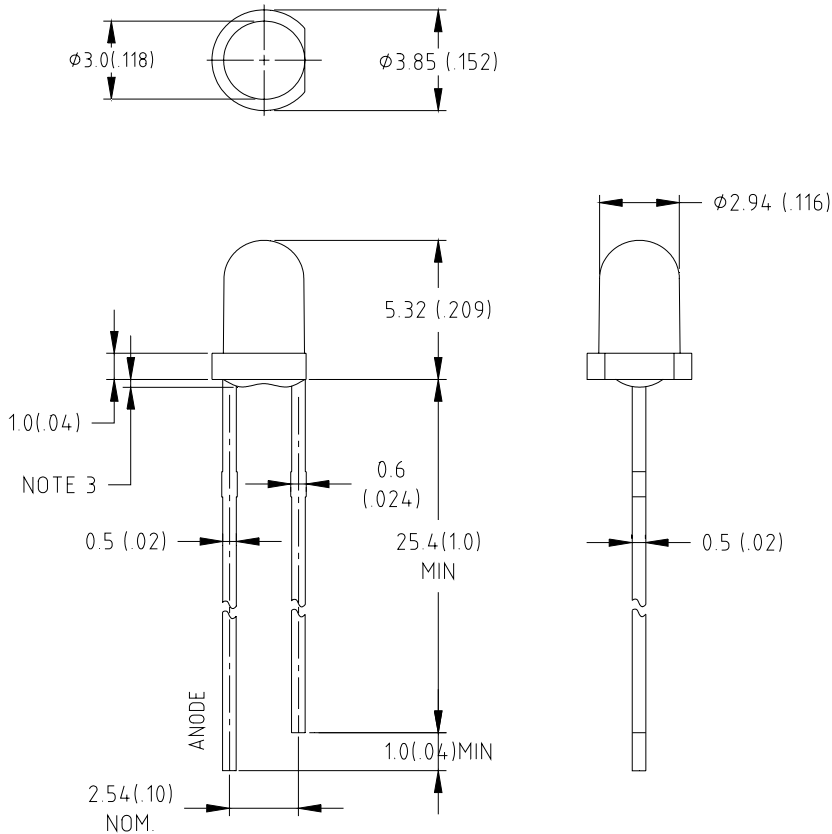
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Part No.	GB-224UR2C	Spec No.	LL-304UC2E-002	Page	1 of 4
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Features:

- ◆ High intensity
- ◆ Standard 3mm diameter package
- ◆ General purpose leads
- ◆ RoHS compliant

Package Dimensions:



Part No.	Chip Material	Lens Color	Emission Color
GB-224UR2C	AlGaAs	Water Clear	Ultra Red

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ (.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm (.04") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.



Absolute Maximum Ratings at Ta=25°C

Parameter	MAX.	Unit
Power Dissipation	90	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	-30°C to +85°C	
Storage Temperature Range	-40°C to +100°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	310	690		mcd	$I_F=20\text{mA}$ (Note 1)
Viewing Angle	$2\theta_{1/2}$		25		Deg	(Note 2)
Peak Emission Wavelength	λ_p		660		nm	$I_F=20\text{mA}$
Dominant Wavelength	λ_d		640		nm	$I_F=20\text{mA}$ (Note 3)
Spectral Line Half-Width	$\Delta\lambda$		25		nm	$I_F=20\text{mA}$
Forward Voltage	V_F		2.0	2.6	V	$I_F=20\text{mA}$
Reverse Current	I_R			50	μA	$V_R=5\text{V}$

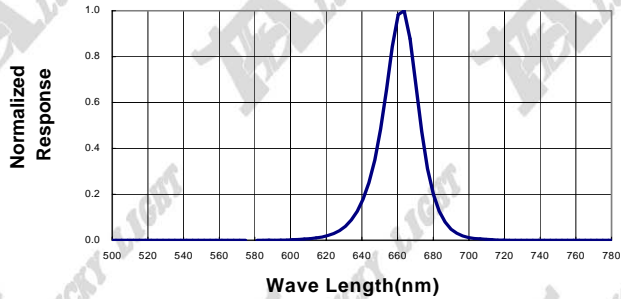
Notes:

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- The dominant wavelength (λ_d) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- Forward voltage measurement allowance is $\pm 0.1\text{V}$
- Luminous Intensity Measurement Allowance is $\pm 10\%$

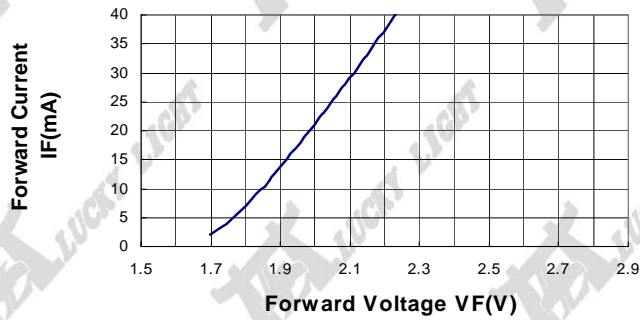


Typical Electrical / Optical Characteristics Curves
(25°C Ambient Temperature Unless Otherwise Noted)

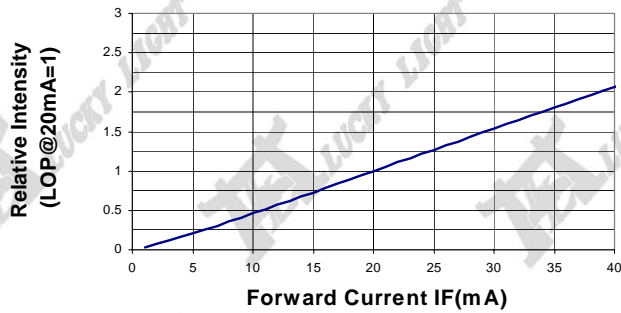
Spectral Radiance (Peak @ 660nm)



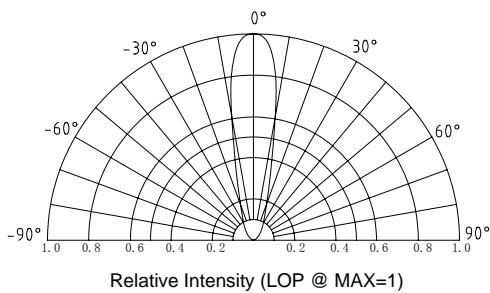
Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



Beam Pattern



Forward Current Derating Curve

