

L200CWRGB2K-4A-IL

Red/Green/Blue

5mm, Flanged Cylindrical, 8.6mm Height

75° viewing angle

DWG BY:

LL / GP

10-22-07

CHK BY:

PL

10-23-07

QA:

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MFG:

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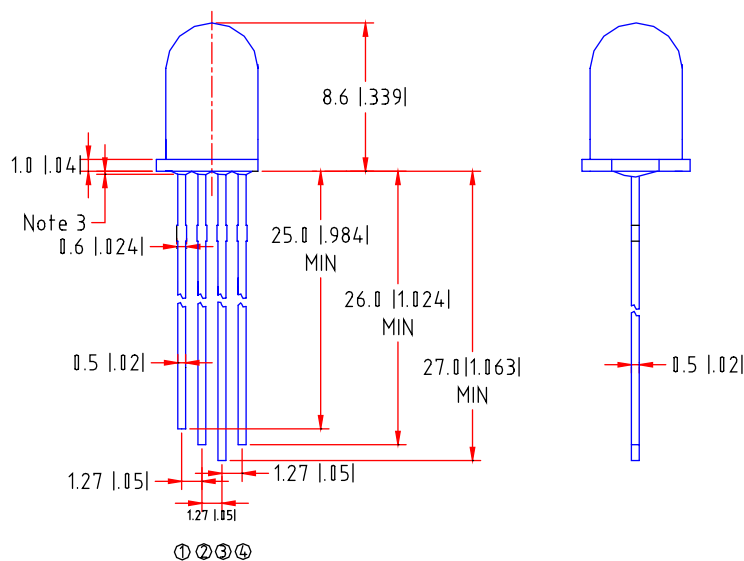
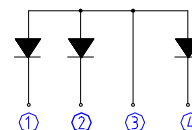
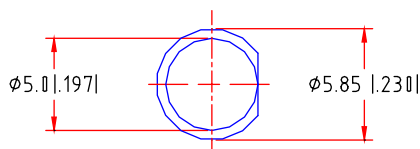
REVISION LTR: -

10-22-07

Features:

- ◆ High intensity
- ◆ 5mm diameter package
- ◆ Tinned leads
- ◆ Pb-free
- ◆ RoHS compliant

Package Dimensions:



1. Green Cathode
2. Red Cathode
3. Common Anode
4. Blue Cathode

Part NO.	Chip Material			Lens Color	Emission Color
L200CWRGB2K-4A-IL	Red	True Green	Blue	Water Clear	Red & True Green & Blue
	AlGaInP	InGaN	InGaN		

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.
6. Precautions for ESD: Static electricity and surge can damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

Absolute Maximum Ratings at Ta=25°C

Parameter	MAX.		Unit
Power Dissipation	Red	90	mW
	Blue	80	
	True Green	80	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100		mA
Continuous Forward Current	Red	35	mA
	Blue	20	
	True Green	20	
Derating Linear From 50°C	0.4		mA/°C
Reverse Voltage	5		V
Electrostatic Discharge (ESD)	600		V
Operating Temperature Range	-30°C to +80°C		
Storage Temperature Range	-40°C to +100°C		
Lead Soldering Temperature [4mm(.157") From Body]	280°C for 5 Seconds		

Notes:

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

Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _V	Red	690	1200	---	mcd	I _F =20mA Note 1
		True Green	1500	3500	---		
		Blue	310	900	---		
Viewing Angle	2θ _{1/2}	Red	---	75	---	Deg	Note 2
		True Green	---	75	---		
		Blue	---	75	---		
Peak Emission Wavelength	λ _p	Red	---	635	---	nm	Measurement @Peak
		True Green	---	520	---		
		Blue	---	465	---		
Dominant Wavelength	λ _d	Red	---	625	---	nm	Note 3
		True Green	---	525	---		
		Blue	---	470	---		
Spectral Line Half-Width	λ	Red	---	17	---	nm	
		True Green	---	32	---		
		Blue	---	26	---		
Forward Voltage	V _F	Red	---	2.0	2.5	V	I _F =20mA
		True Green	---	3.2	4.0		
		Blue	---	3.2	4.0		
Reverse Current	I _R	Red	---	---	10	μA	V _R =5V
		True Green					
		Blue					
Chromaticity Coordinaytes	X	Red	---	0.69	---		I _F =20mA
	Y		---	0.30	---		
Chromaticity Coordinaytes	X	True Green	---	0.16	---		I _F =20mA
	Y		---	0.73	---		
Chromaticity Coordinaytes	X	Blue	---	0.13	---		I _F =20mA
	Y		---	0.05	---		

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

