

L122R6IR880A

Infrared/Red

3mm, Flanged Cylindrical, 5.3mm Height
33° viewing angle

DWG BY:
LL / GP
05-06-08

CHK BY:
PL
05-07-08

QA:

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MFG:

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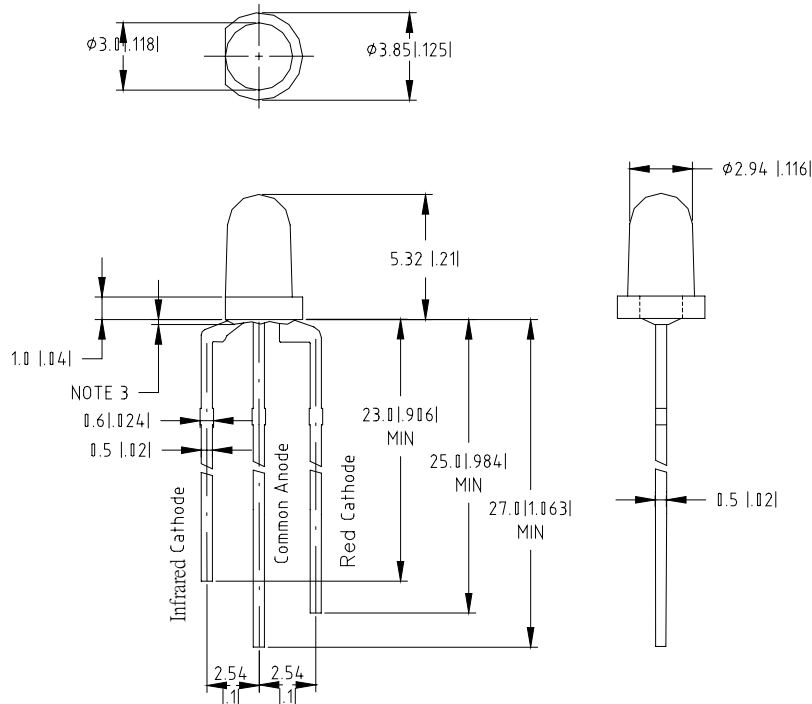
REVISION LTR: -

05-06-08

Features:

- ◆ High intensity
- ◆ 3mm diameter package
- ◆ Tinned leads
- ◆ Pb-free

Package Dimensions:



WARNING: DO NOT LOOK AT LED DIRECTLY WHEN POWER IS ON, USE IR CAMERA TO VIEW LED.

Part NO.	Chip Material		Lens Color	Emission Color
L122R6IR880A	Infrared	Red	Water Clear	Infrared & Red
	AlGaAs	AlGaAs		

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 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	Infrared	55	mW
	Red	90	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100		mA
Continuous Forward Current	Infrared	35	mA
	Red	35	
Derating Linear From 50°C	0.4		mA/°C
Reverse Voltage	5		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		

Electrical Optical Characteristics at Ta=25°C

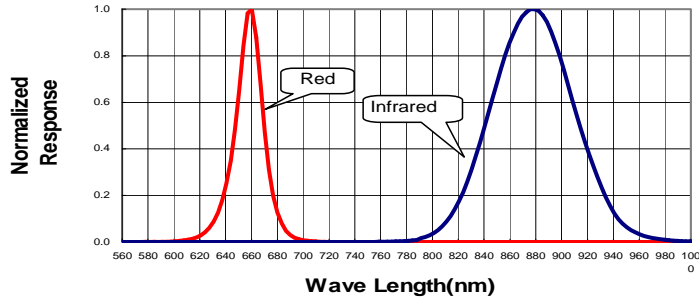
Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Radiant Intensity	I _e	Infrared	2.5	5.0	---	mW/Sr	I _F =20mA Note 1
Luminous Intensity	I _v	Red	200	400	---	mcd	
Viewing Angle	2θ _{1/2}	Infrared	23	33	45	Deg	Note 2
		Red	23	33	40		
Peak Emission Wavelength	λ _p	Infrared	---	898	---	nm	I _F =20mA
		Red	650	653	655		
Dominant Wavelength	λ _d	Infrared	---	---	---	nm	I _F =20mA Note 3
		Red	635	639	645		
Spectral Line Half-Width	□λ	Infrared	---	71	---	nm	I _F =20mA
		Red	---	22	---		
Forward Voltage	V _F	Infrared	0.9	1.2	1.5	V	I _F =20mA
		Red	1.6	2.0	2.4		
Reverse Current	I _R	Infrared	---	---	10	μA	V _R =5V
		Red					

Notes:

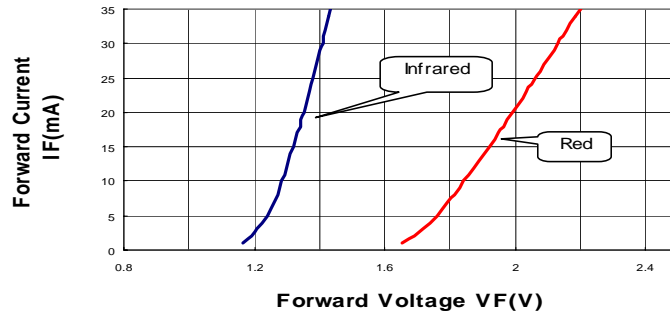
1. Luminous & Radiant intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ_{1/2} is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λ_d) is derived from the CIE chromaticity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

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

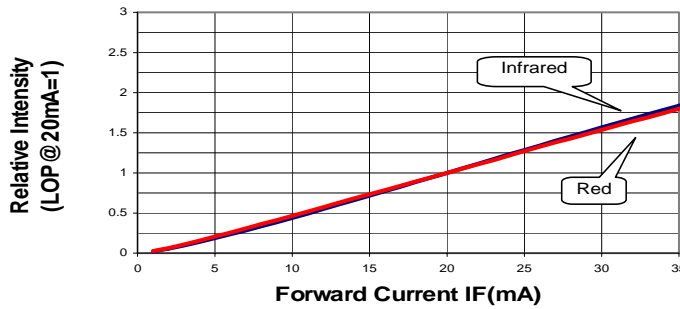
**Spectral Radiance Red Peak @ 660nm
 Infrared Peak @ 880nm**



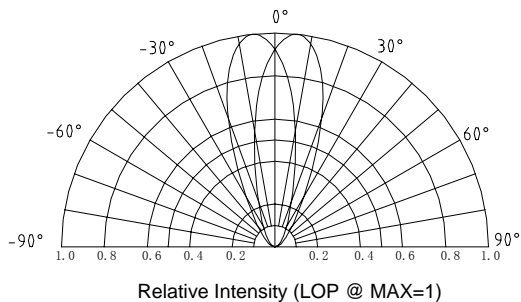
Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



Beam Pattern



Forward Current Derating Curve

