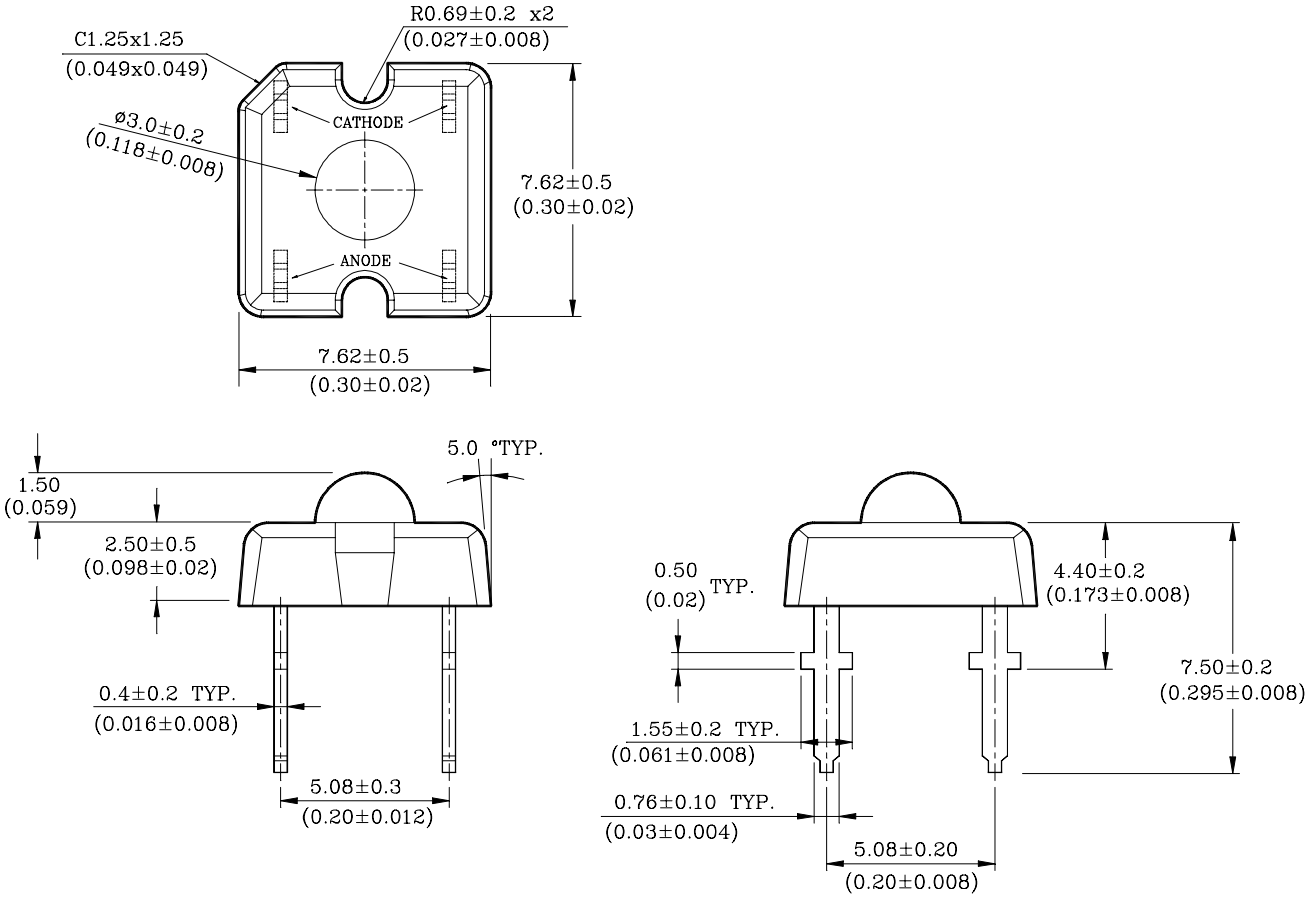
Features

* High current operation / High flux output.
* Low thermal resistance / Low profile.
* Widely viewing angle.
* Meet SAE/ECE/JIS automotive color requirements.
* Tube package for automatic insertion requirement

Application

* Automotive exterior lighting.
* Electronic sign and signals.

Package Dimensions



Part No.	Lens	Source Color
LTL911QAKS	Water Clear	AlInGaP Red Orange

NOTES:
1. All dimensions are in millimeters (inches).
2. Protruded resin is 1.0mm(.04") max.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject change to without notice.

Absolute Maximum Ratings at T_A=25℃

Parameter	Maximum Rating	Unit
Power Dissipation	190	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	90	mA
Continuous Forward Current	70	mA
Derating Linear From 70℃	1.17	mA/℃
Reverse Voltage (I_R =100 μA)	10	V
Operating Temperature Range	-40℃ to + 100℃	
Storage Temperature Range	-55℃ to + 100℃	
Soldering Preheat Temperature Lead Soldering Temperature	100℃ for 30 Seconds 260℃ for 5 Seconds [1.5mm (.06”) From Seating Plane]	

Notes: Operation at currents below 10mA is not recommended.

Electrical / Optical Characteristics at T_A=25℃

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Total Flux	$Ø_V$	600	1850		mlm	I_F = 70mA Note 1
Luminous Intensity / Total Flux	I_V / $Ø_V$		0.6		mcd / mlm	
Viewing Angle	$2\theta_{1/2}$		90		deg	Note 2 (Fig.5)
Peak Emission Wavelength	λ_P		621		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λ_d		615		nm	Note 3
Spectral Line Half-Width	$\Delta\lambda$		18		nm	
Forward Voltage	V_F	1.85	2.15	2.65	V	I_F = 70mA
Reverse Voltage	V_R	10	20		V	I_R = 100 μA
Capacitance	C		40		pF	V_F = 0 , f = 1MHz
Thermal resistance	$R\theta_{J\text{-}PIN}$		160		℃/W	

Note: 1. $Ø_V$ is the total luminous flux output as measured with an integrating sphere.

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.

Typical Electrical / Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

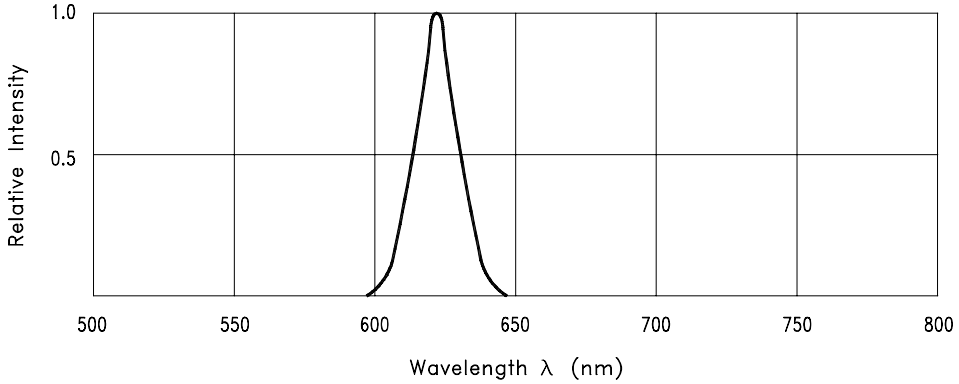


Fig.1 Relative Intensity vs. Wavelength

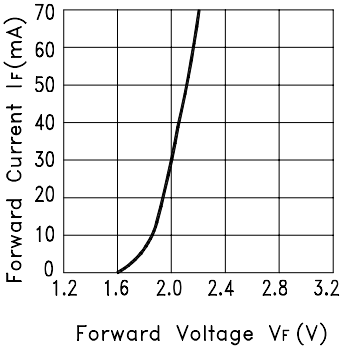


Fig.2 Forward Current vs. Forward Voltage

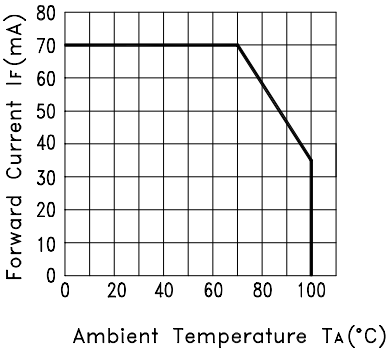


Fig.3 Forward Current Derating Curve

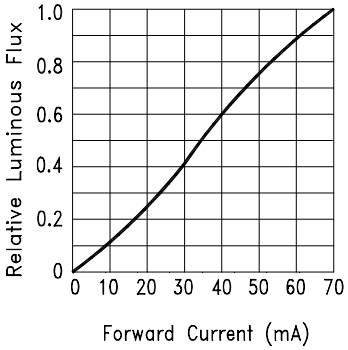


Fig.4 Relative Luminous Flux vs. Forward Current

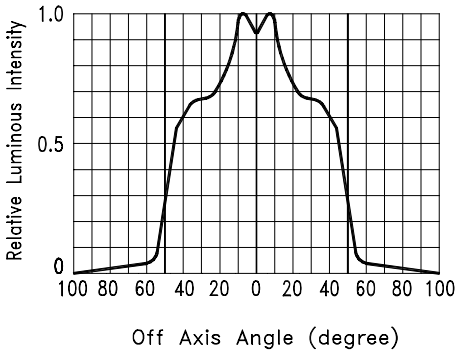


Fig.5 Relative Luminous Intensity vs. Off Axis Angle

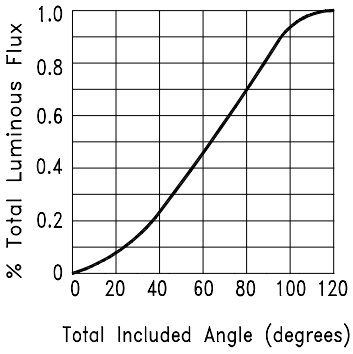


Fig.6 Percent Total Luminous Flux vs. Total Included Angle