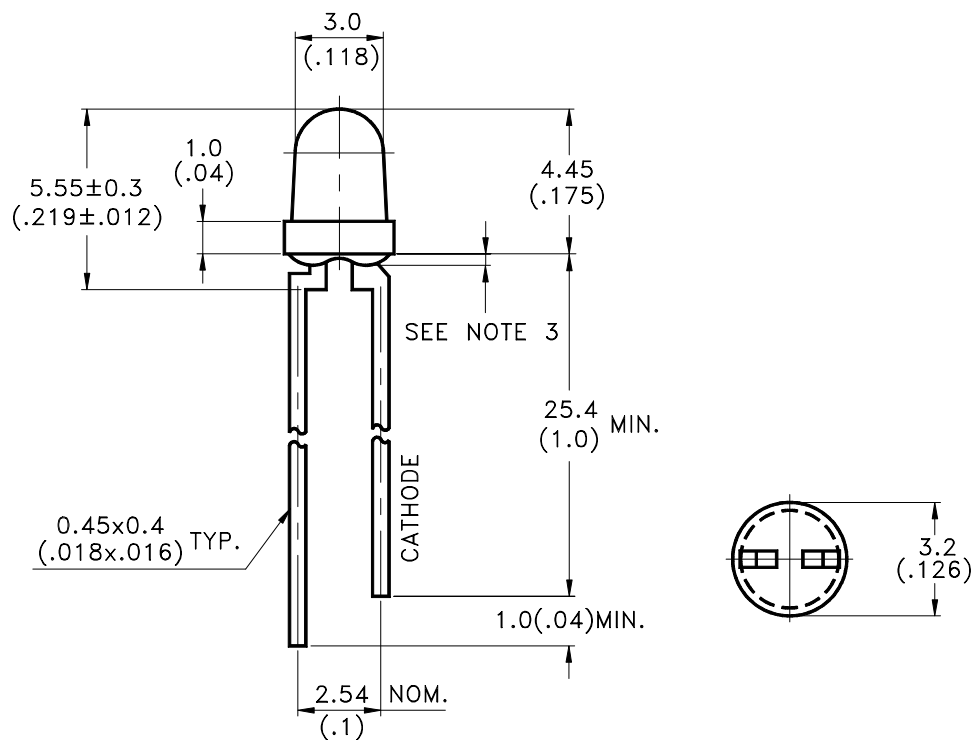


Features

- * High luminous intensity output.
- * Low power consumption.
- * High efficiency.
- * Versatile mounting on P.C. Board or panel.
- * I.C. Compatible/low current requirement.
- * Popular T-1 diameter package.

Package Dimensions



Part No.	Lens	Source Color
LTL42NKRKNN	Water Clear	AlInGaP Super 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.



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Absolute Maximum Ratings at T_A=25°C

Parameter	Maximum Rating	Unit
Power Dissipation	75	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	90	mA
Continuous Forward Current	30	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-40°C to + 100°C	
Storage Temperature Range	-55°C to + 100°C	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds	

Electrical / Optical Characteristics at T_A=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	85	180		mcd	I _F = 20mA Note 1
Viewing Angle	2 $\theta_{1/2}$		56		deg	Note 2 (Fig.5)
Peak Emission Wavelength	λ_P		639		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λ_d		631		nm	Note 4
Spectral Line Half-Width	$\Delta \lambda$		20		nm	
Forward Voltage	V _F		2.0	2.4	V	I _F = 20mA
Reverse Current	I _R			100	μ A	V _R = 5V
Capacitance	C		40		pF	V _F = 0 , f = 1MHz

NOTE: 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. I_v classification code is marked on each packing bag.

4. The dominant wavelength, λ_d is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

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Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

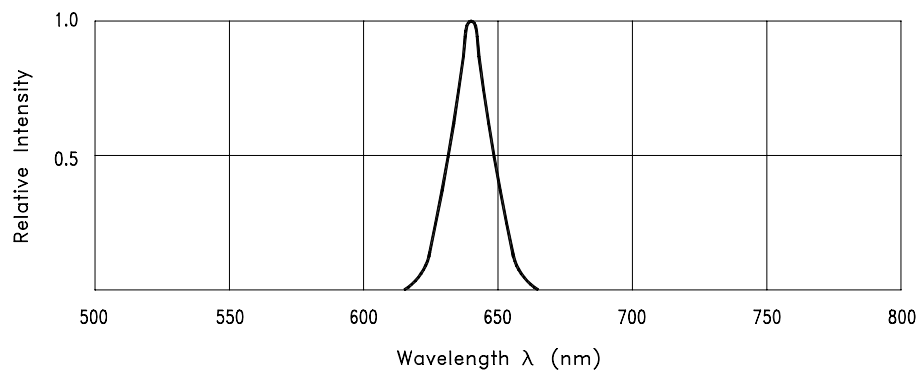


Fig.1 Relative Intensity vs. Wavelength

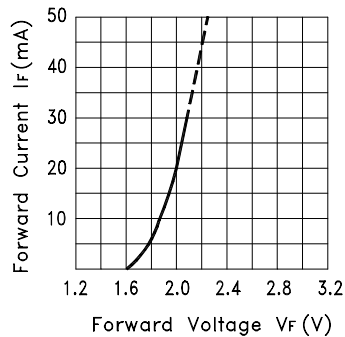


Fig.2 Forward Current vs. Forward Voltage

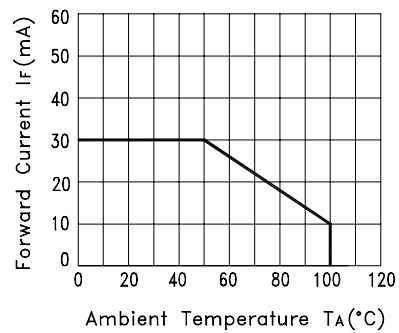


Fig.3 Forward Current Derating Curve

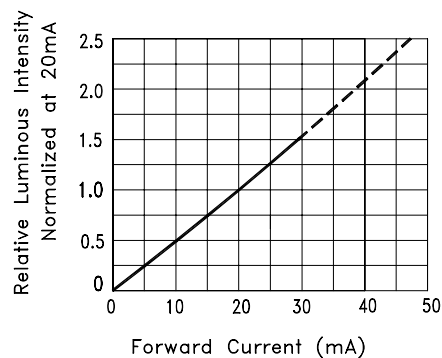


Fig.4 Relative Luminous Intensity vs. Forward Current

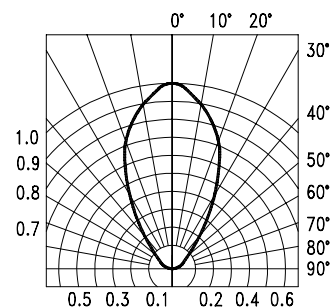
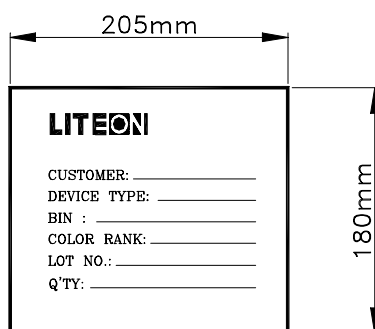


Fig.5 Spatial Distribution

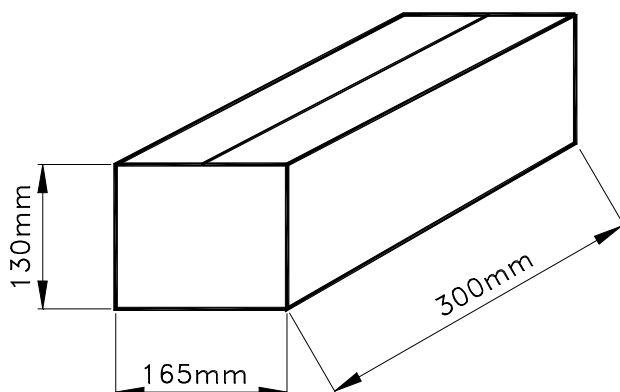
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Packing Spec

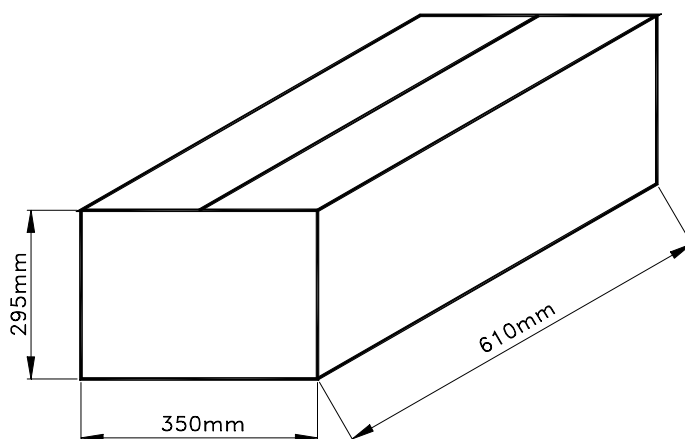
1000, 500 or 250 pcs per packing bag



10 packing bags per inner carton
total 10000 pcs per inner carton



8 Inner cartons per outer carton
total 80000 pcs per outer carton





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Bin Code List For Reference

Luminous Intensity		Unit : mcd @20mA
Bin Code	Min.	Max.
E	85	110
F	110	140
G	140	180
H	180	240
J	240	310
K	310	400

Dominant Wavelength		Unit : nm @20mA
Bin Code	Min.	Max.
H029	621.0	625.0
H030	625.0	629.0
H031	629.0	633.0
H032	633.0	637.0