

# L120TO5N

Orange

3mm, Flanged Cylindrical, 4.5mm Height  
45° viewing angle

DWG BY:  
BL / GP  
09-28-06

CHK BY:  
PL  
01-17-07

QA:  
\_\_\_\_\_  
\_\_-\_\_-\_\_

MFG:  
\_\_\_\_\_  
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REVISION LTR: -

01-16-07

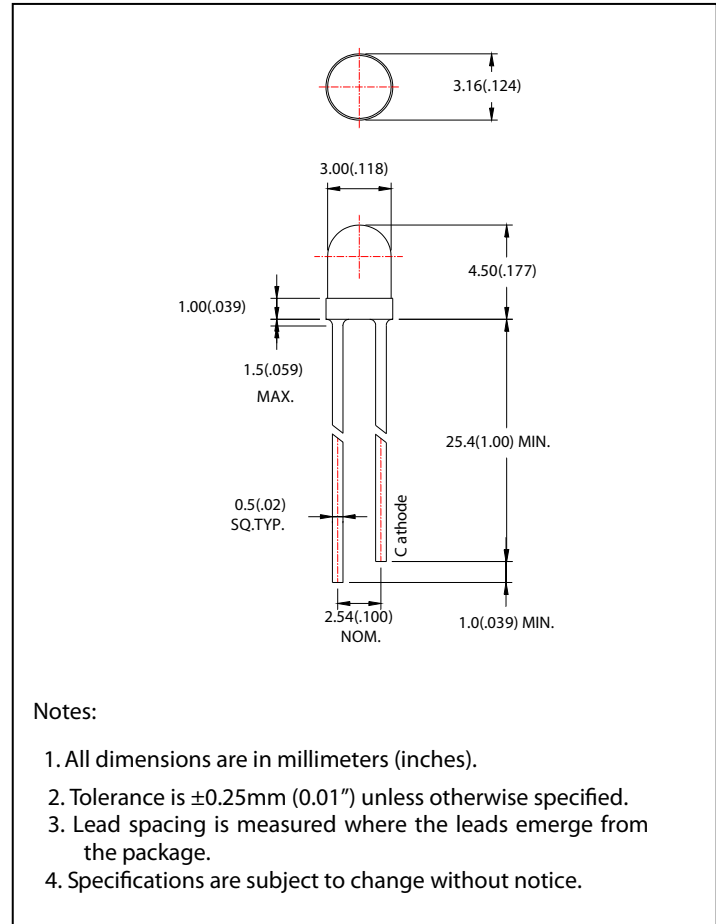
● **Features:**

1. Chip material: GaAsP/GaP
2. Emitted color: Orange
3. Lens Appearance: Orange Diffused
4. Low power consumption.
5. High efficiency.
6. Versatile mounting on P.C. Board or panel.
7. Low current requirement.
8. 3mm diameter package.
9. This product is RoHS compliant.

● **Applications:**

1. TV set
2. Monitor
3. Telephone
4. Computer
5. Circuit board

● **Package dimensions**



● **Absolute maximum ratings(Ta=25°C)**

Parameter	Symbol	Rating	Unit
Power Dissipation	P <sub>d</sub>	80	mW
Forward Current	I <sub>F</sub>	30	mA
Peak Forward Current* <sup>1</sup>	I <sub>FP</sub>	150	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	Topr	-40 °C ~80 °C	
Storage Temperature	Tstg	-40 °C ~85 °C	
Soldering Temperature	Tsol	260 °C (for 5 seconds)	

\*<sup>1</sup>Condition for I<sub>FP</sub> is pulse of 1/10 duty and 0.1msec width.

● **Electrical and optical characteristics(Ta=25°C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=20mA$	-	2.0	2.6	V
Luminous Intensity	$I_v$	$I_F=20mA$	-	42	-	mcd
Reverse Current	$I_R$	$V_R=5V$	-	-	100	$\mu A$
Peak Wave Length	$\lambda_p$	$I_F=20mA$	604	608	611	nm
Dominant Wave Length	$\lambda_d$	$I_F=20mA$	600	603	606	nm
Spectral Line Half-width	$\Delta \lambda$	$I_F=20mA$	-	38	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20mA$	-	45	-	deg
Radiant Intensity		$I_F=20mA$	-	-	-	$\mu W/sr$
Chromaticity Coordinates	X	$I_F=20mA$	-	0.64	-	
	Y		-	0.36	-	

● **Typical electro-optical characteristics curves**

Fig.1 Relative intensity vs. Wavelength

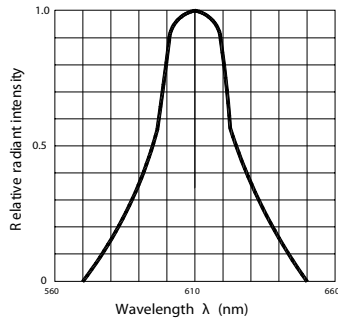


Fig.2 Forward current derating curve vs. Ambient temperature

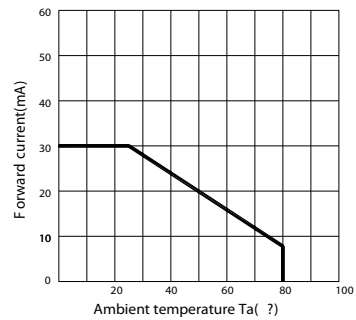


Fig.3 Forward current vs. Forward voltage

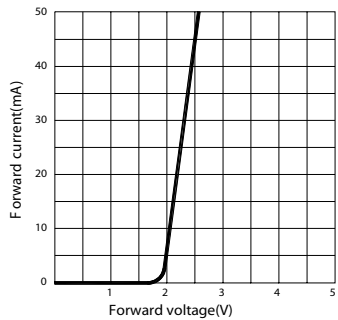


Fig.4 Relative luminous intensity vs. Ambient temperature

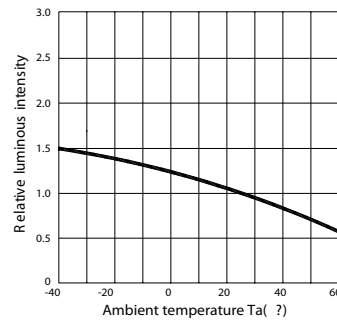


Fig.5 Relative luminous intensity vs. Forward current

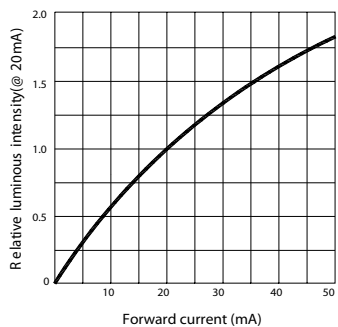


Fig.6 Radiation diagram

