

L120TR6N

Ultra Red

3mm, Flanged Cylindrical, 4.5mm Height
60° viewing angle

DWG BY:

BL / GP

01-19-07

CHK BY:

PL

05-24-07

QA:

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MFG:

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REVISION LTR: -

05-24-07

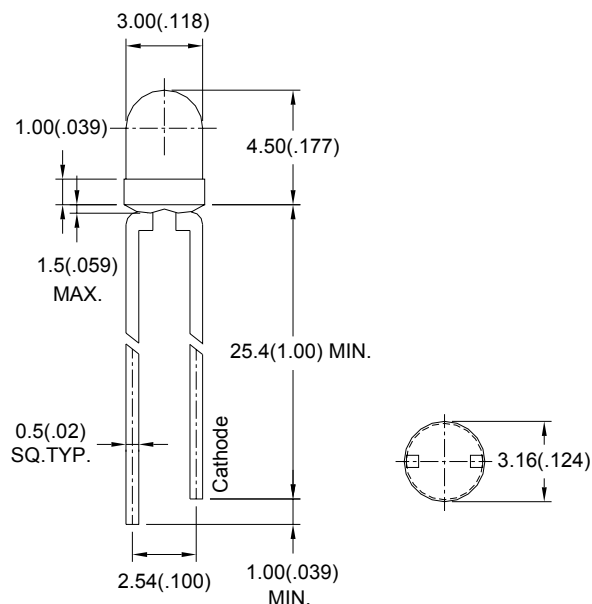
● Features:

1. Chip material: AlGaAs/GaAs
2. Emitted color : Ultra Red
3. Lens Appearance : Red 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



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

● Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	80	mW
Forward Current	I _F	30	mA
Peak Forward Current* ¹	I _{FP}	150	mA
Reverse Voltage	V _R	5	V
Operating Temperature	Topr	-40°C~80°C	
Storage Temperature	Tstg	-40°C~85°C	
Soldering Temperature	Tsol	260°C (for 5 seconds)	

*¹Condition for I_{FP} 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	$I_F=20\text{mA}$	-	1.8	2.6	V
Luminous Intensity	I_v	$I_F=20\text{mA}$	-	90	-	mcd
Reverse Current	I_R	$V_R=5\text{V}$	-	-	100	μA
Peak Wave Length	λ_p	$I_F=20\text{mA}$	650	656	660	nm
Dominant Wave Length	λ_d	$I_F=20\text{mA}$	638	640	648	nm
Spectral Line Half-width	$\Delta\lambda$	$I_F=20\text{mA}$	-	22	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20\text{mA}$	-	60	-	deg
Radiant Intensity		$I_F=20\text{mA}$	-	-	-	$\mu\text{W/sr}$
Chromaticity Coordinates	X	$I_F=20\text{mA}$	-	0.72	-	
	Y		-	0.28	-	

● **Typical electro-optical characteristics curves**

Fig.1 Relative intensity vs. Wavelength

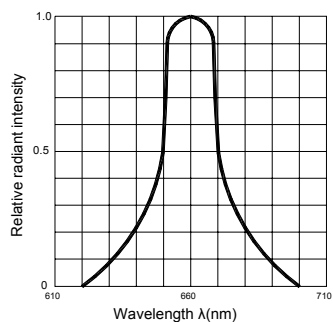


Fig.2 Forward current derating curve vs. Ambient temperature

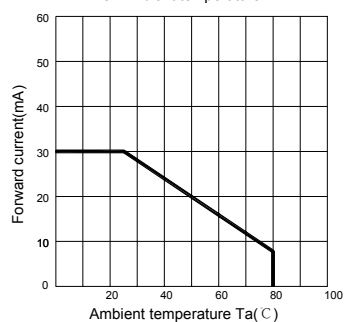


Fig.3 Forward current vs. Forward voltage

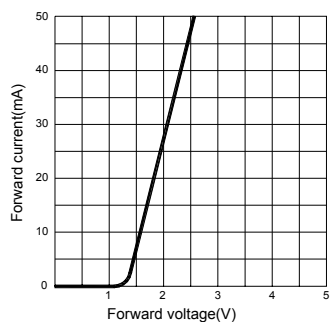


Fig.4 Relative luminous intensity vs. Ambient temperature

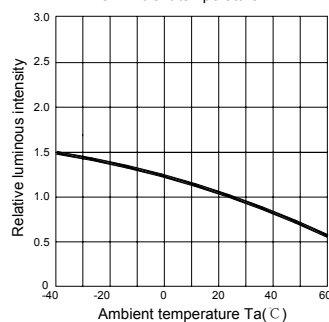


Fig.5 Relative luminous intensity vs. Forward current

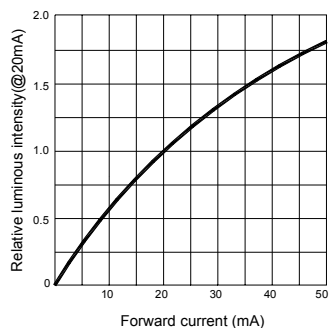


Fig.6 Radiation diagram

