LITEON

Visible Laser Diodes

LTLD605T

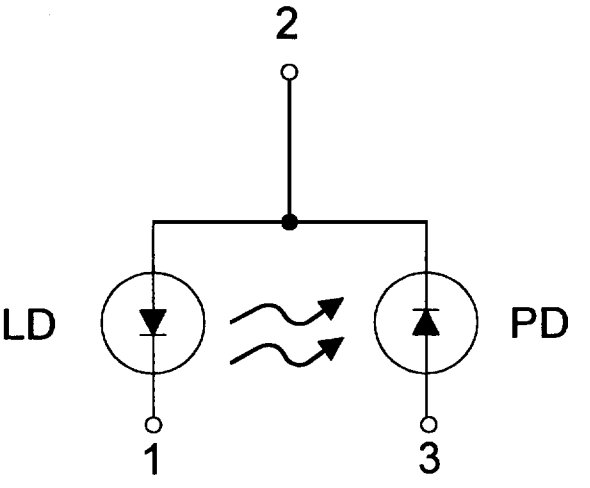
Features:

Liton's LTLD605T is a low cost 660 nm AlGaInP laser diode with low threshold current and high output efficiency. A diffraction-limited single spatial mode beam output allows easy collimation with readily available optics. The astive layer is MOCVD grown strained quantum well epitaxial structure. The high output efficiency is achieved by optimized device structure design. Both laser facets are coated with multilayer dielectric to assure high performance and reliability. A PIN photo-diode is included with each laser for output power monitoring, Liton's LTLD605T is ideal for pointing,alignment, and bar code scanning applications.

Elcctro-optical Characteristic(Tc=25 ℃)

ITEMS	SYMBOL	TEST CONDITION	MIN	TYP.	MAX.	UNIT
Optical Output Power	Po	Kink Free	5	-	-	mW
Threshold Current	I_{th}		-	25	40	mA
Operation Current	I_{op}	Po=5 mW	-	35	60	mA
Operation Voltage	V_{op}	Po=5 mW	-	2.2	2.6	V
Lasing Wavelength	λ_{op}	Po=5 mW	655	660	665	nm
Slope Efficiency	η	3mW ~ 5mW	0.1	0.4	-	mW/mA
Beam Divergence	$\theta_{\perp}$	Po=5 mW,FWHM	-	30	-	deg.
	$\theta_{//}$	Po=5 mW,FWHM	-	8	-	deg.
Monitor Current	I_m	Po=5 mW	-	0.1	0.3	mA

Pin Connection:

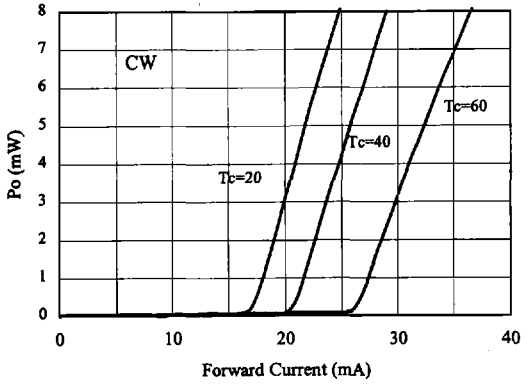


1. Laser diode cathode
2. Laser diode anode and photodiode cathode
3. Pphotodiode anode

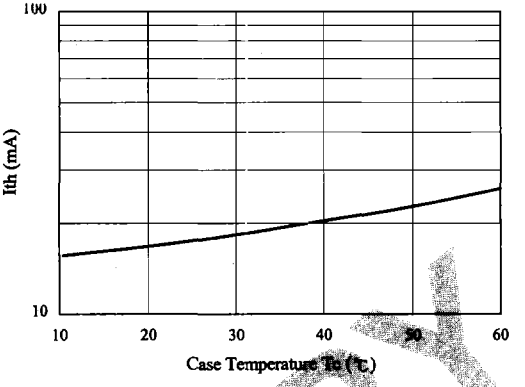
Absolute Maximum Ratings(Tc=25 ℃)

ITEMS	SYMBOL	RATINGS	UNIT
Optical Output Power	Po	6	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operation Case Temperature	Tc	-10 ~ +50	℃

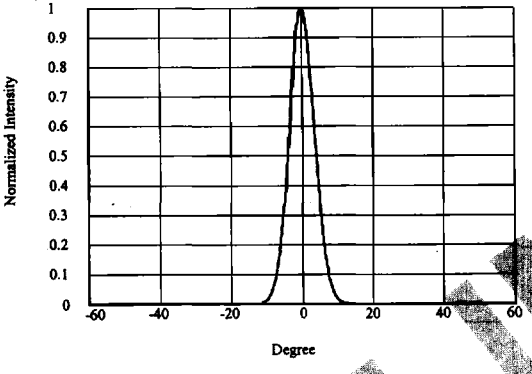
Optical Output Power (Po) vs. Forward Current



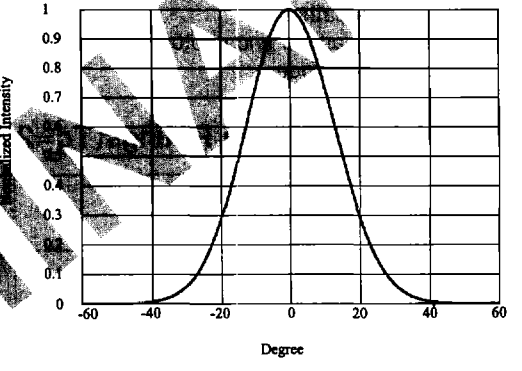
Threshold Current vs. Temperature



Parallel Far Field Pattern



Perpendicular Far Field Pattern



Package Outline:

Units in: mm