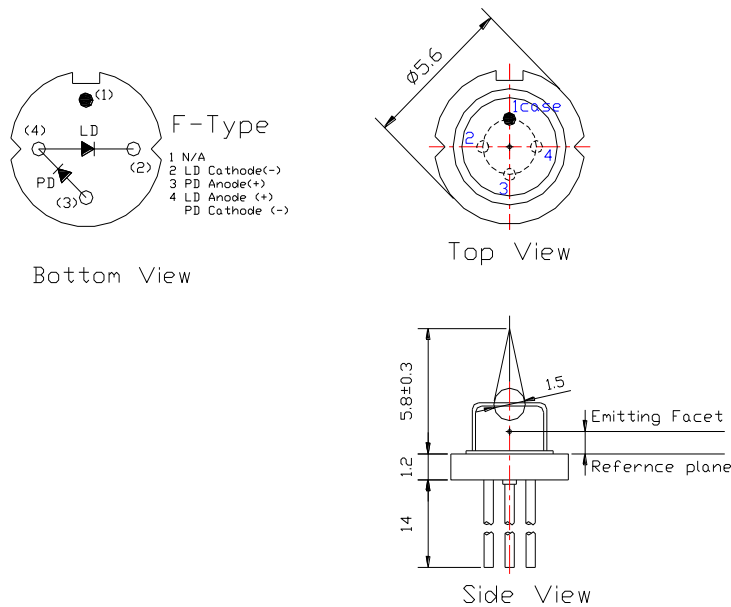


1550nm Laser Diode

**1550nm Laser Diode
LCU150588F**

- Features
 - Un-cooled Laser diode with MQW structure
 - Wide operation temperature range
 - Dew point below -40°C
 - Both ball lens and flat window cap available

■ External dimensions (Unit : mm)



■ Absolute Maximum Ratings(Tc=25°C)

Characteristic	Symbol	Rating	Unit
Optical Output Power	P _o	5	mW
LD Reverse Voltage	V _r (LD)	2	V
PD Reverse Voltage	V _r (PD)	10	V
Operation Case Temperature	Top	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

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1550nm Laser Diode

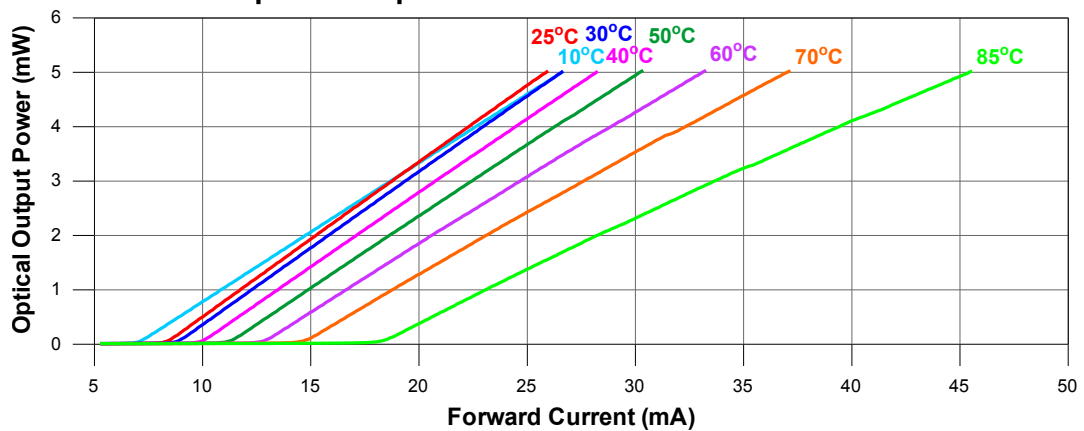
Electrical and Optical Characteristics (Po=5mW, Tc=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Threshold Current	I _{th}	CW	-	10	15	mA
Operating Current	I _{op}	CW	-	-	35	mA
Operation Voltage	V _{op}	CW	-	1.2	1.5	V
Slope Efficiency	SE	CW	0.15	0.2	-	mW/mA
Monitor Current (PD)	I _m	V _{rp} =5V, I _{th} + 20mA	0.1	-	-	mA
Dark Current (PD)	I _d	V _{rp} =5V	-	-	0.1	μA
Capacitance (PD)	C _t	V _{rp} =5V, f=1MHz	-	8	20	pF
Lasing Wavelength	λ	CW	1520	1540	1570	nm
Spectral Width	Δλ	CW, RMS	-	2	5	nm
Rise and fall time	t _r , t _f	CW, I _b =I _{th} , 10%~90%	-	-	0.5	ns
Beam Divergence (FWHM)	Parallel	θ //	-	18	-	deg.
	Perpendicular	θ ⊥	-	35	-	deg.

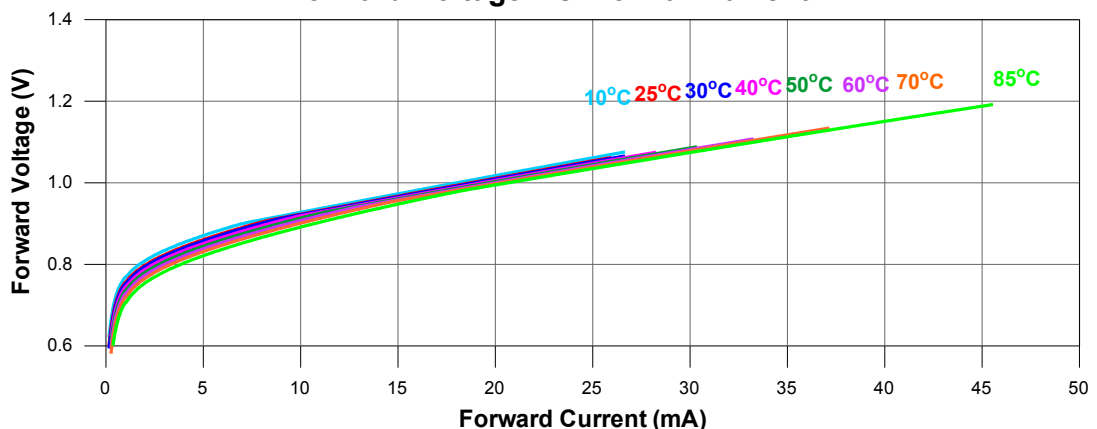
⊙θ // and θ ⊥ are defined as the angle within which the intensity is 50% of the peak value.

Typical characteristic curves

Optical Output Power v.s. Forward Current

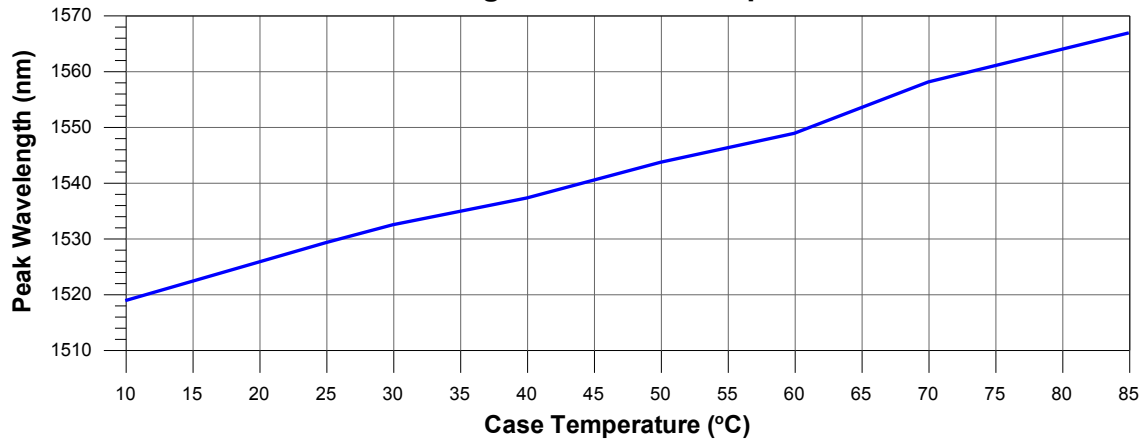


Forward Voltage v.s. Forward Current

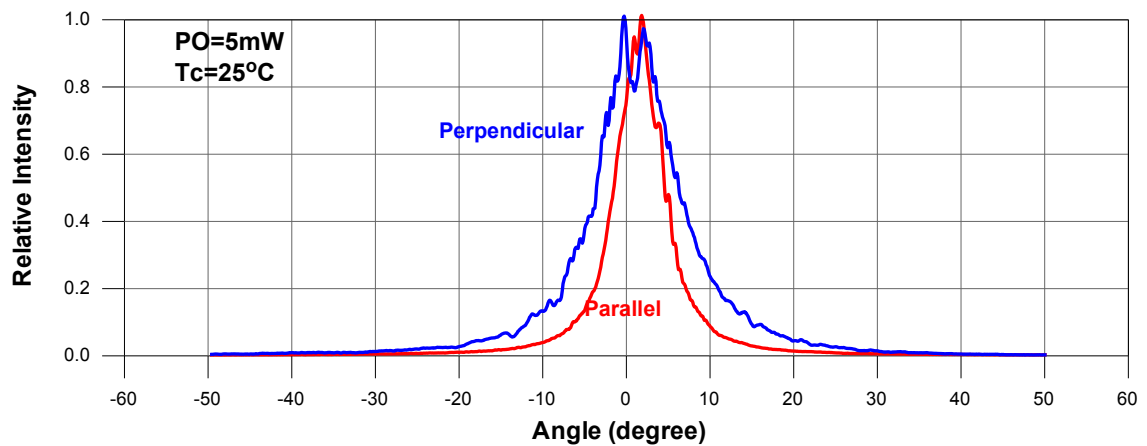


1550nm Laser Diode

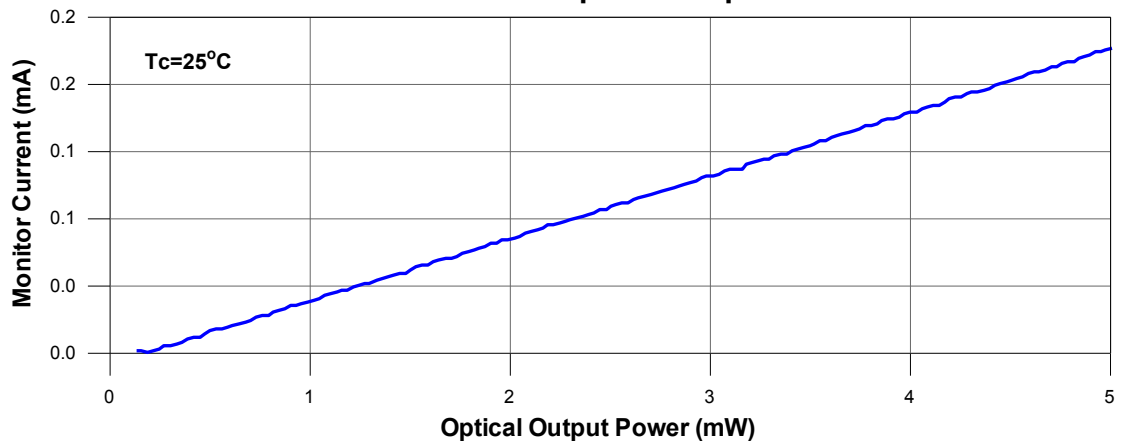
Peak Wavelength v.s. Case Temperature



Far-Field Pattern



Monitor Current v.s. Optical Output Power



1550nm Laser Diode

