



# LD650-10-1

## ●Specifications:

Wavelength: 650nm  
 Power: 10mW CW  
 Package: TO18

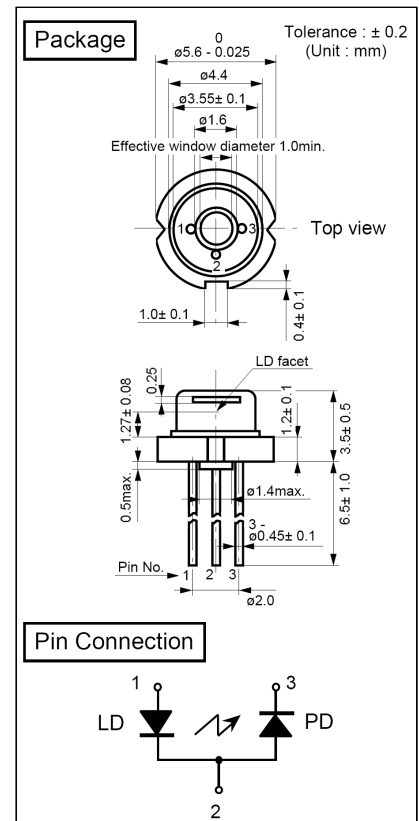
## ●Absolute Maximum Ratings(T<sub>c</sub>=25°C):

Parameter		Symbols	Rated	Units
Light Output	CW	P <sub>o</sub>	12	mW
Reverse Voltage	Laser	V <sub>r</sub>	2	V
	PD	V <sub>r</sub> (PIN)	30	V
Operation Temperature		T <sub>op</sub>	-10~+40	°C
Storage Temperature		T <sub>stg</sub>	-15~+85	°C

## ●Electrical and Optical Characteristics(T<sub>c</sub>=25°C):

Parameter		Symbols	Condition	Min.	Typ.	Max.	Unit
Lasing Wavelength		λ <sub>p</sub>	P <sub>o</sub> =10mW	640	655	665	nm
Threshold Current		I <sub>th</sub>	CW	-	24	40	mA
Operating Current		I <sub>op</sub>	P <sub>o</sub> =10mW	-	40	50	mA
Operating voltage		V <sub>op</sub>	P <sub>o</sub> =10mW	-	2.4	2.8	V
Monitoring Output Current		I <sub>m</sub>	P <sub>o</sub> =10mW V <sub>r</sub> =0V	0.1	0.3	1.0	mA
Beam Divergence <sup>1)</sup>	Parallel	θ <sub>∥</sub>	P <sub>o</sub> =10mW	5	8	12	deg.
	Perpendicular	θ <sub>⊥</sub>	P <sub>o</sub> =10mW	26	30	32	deg.
Slope Efficiency		η	-	0.3	0.6	-	mW/mA
Life Time (MTTF)					>5000		h

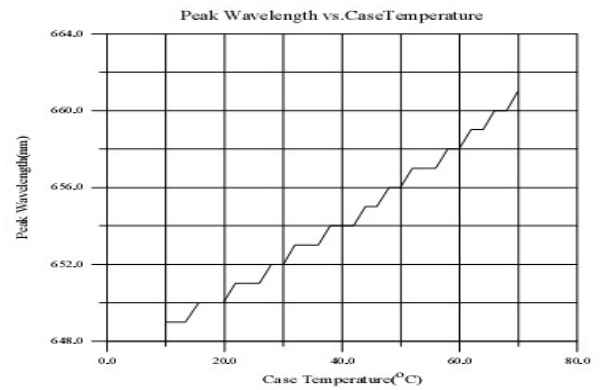
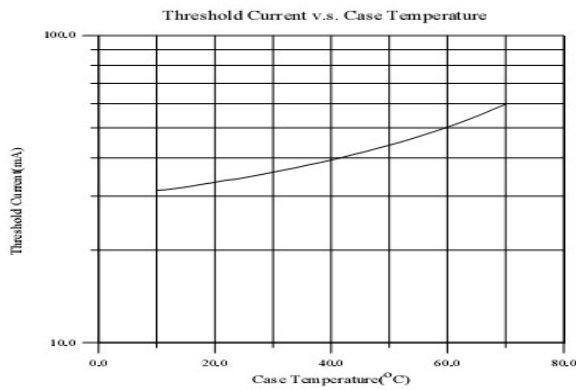
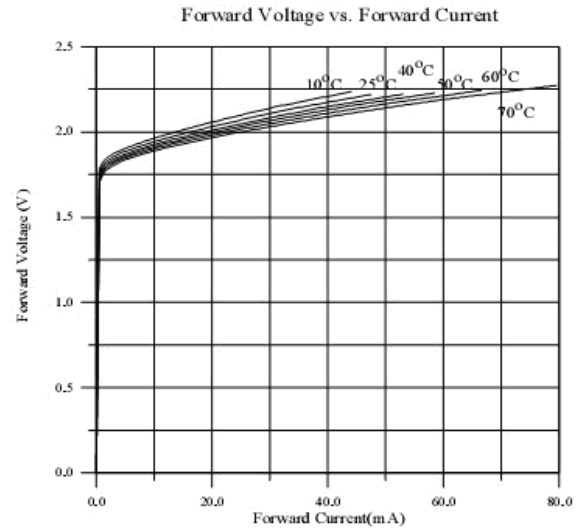
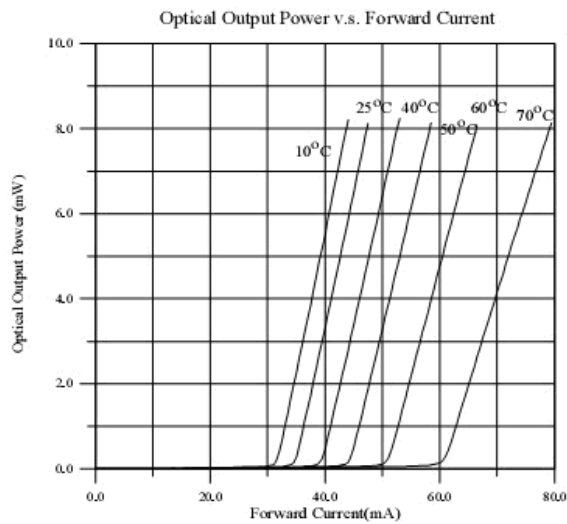
1) Full angle at half Maximum





Tel: (+86) 577-8181-0885  
Fax: (+86)577-6286-6900  
www.z-optics.com  
Sales@z-optics.com

●Electrical and Optical Characteristics Curves( $T_c=25^{\circ}\text{C}$ ):

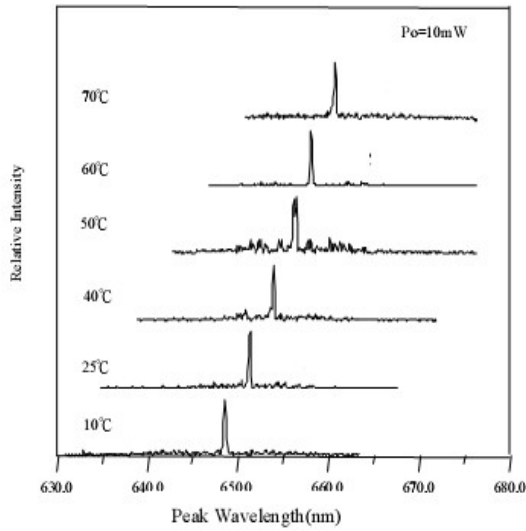


Z-Optics Co., Ltd.  
Hailong Building C301, Xiaonan Road  
Wenzhou, Zhejiang Province  
325028, China  
Company Code: 3102282052763

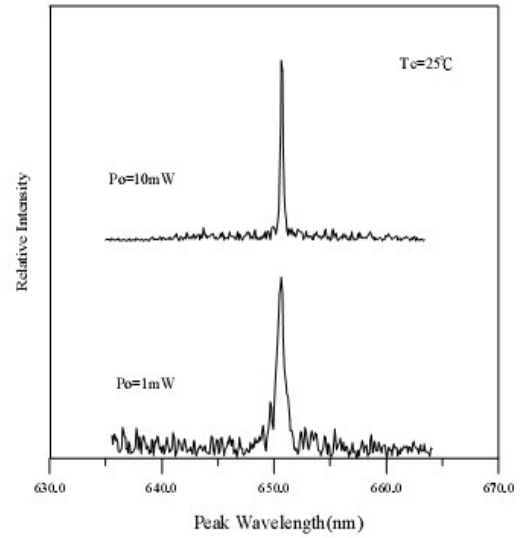


Tel: (+86) 577-8181-0885  
Fax: (+86)577-6286-6900  
www.z-optics.com  
Sales@z-optics.com

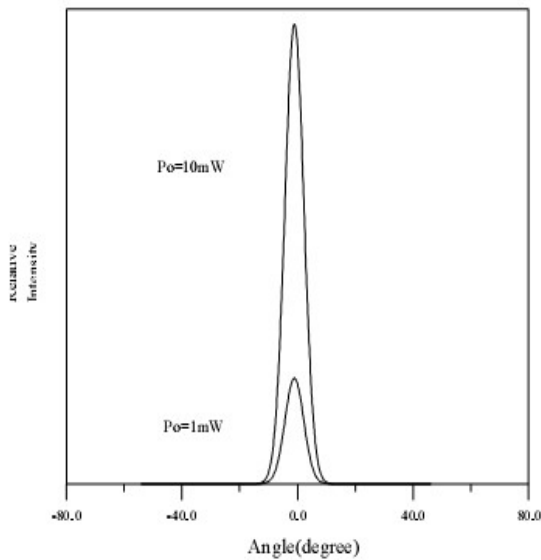
Lasing Spectrum v.s. Temperature



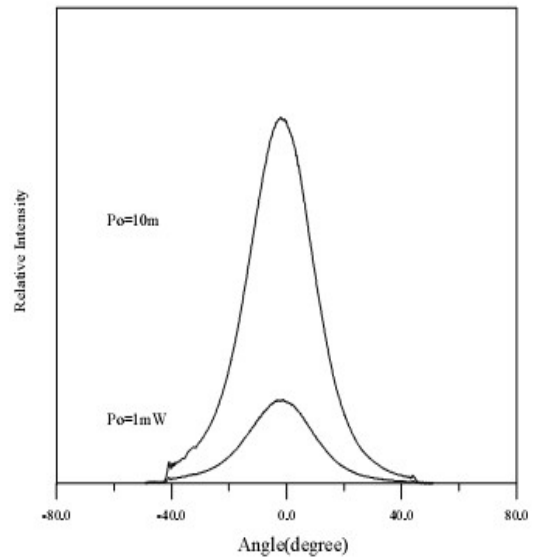
Lasing Spectrum v.s. Optical Output Power



Far-Field Pattern(Parallel) vs. Optical Output Power



Far-Field Pattern(Perpendicular) vs. Optical Output Power



Z-Optics Co., Ltd.  
Hailong Building C301, Xiaonan Road  
Wenzhou, Zhejiang Province  
325028, China  
Company Code: 3102282052763