

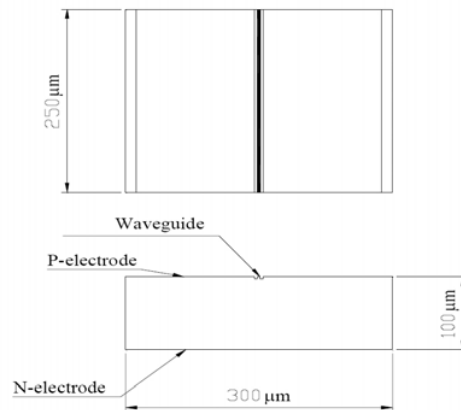


CHIP-650-P5

■ Specifications

- (1) Size : 300*250*100 μm
- (2) Device: Laser diode bare chip
- (3) Structure: Strained MQW and Multi-step MOCVD growth

■ External dimensions(Unit : μm)



P-electrode and N-electrode are both gold pads.

■ Absolute Maximum Ratings($T_c=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Optical Output	P _o	7	mW
Reverse Voltage	V _r	2	V
Operation Temperature	T _{op}	-10~+40	°C
Storage Temperature	T _{stg}	-15~+85	°C



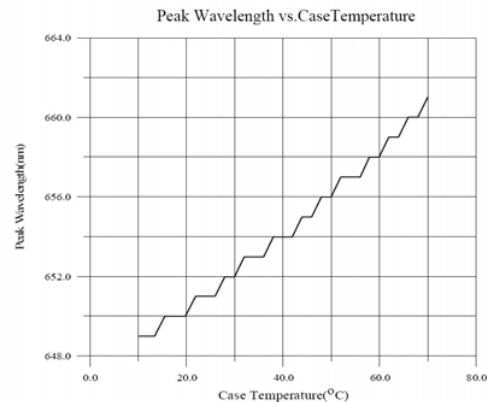
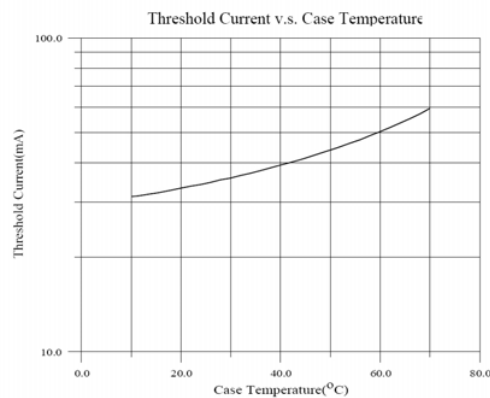
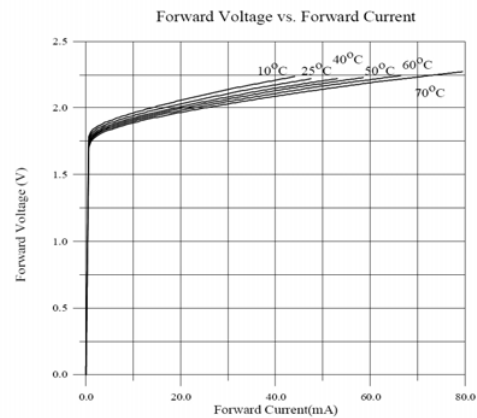
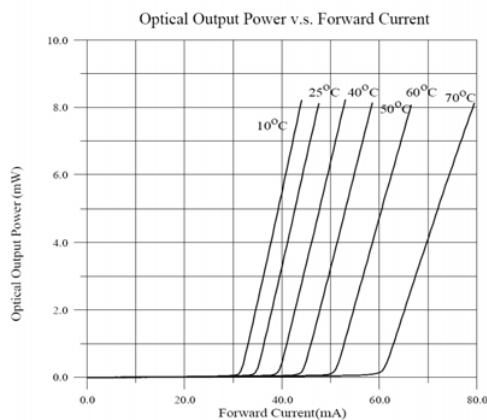
Electrical and Optical Characteristics (Tc=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Threshold Current	I _{th}	-	-	23	30	mA	
Operating Current	I _{op}	P _o =5mW	-	29	40	mA	
Operating Voltage	V _{op}	-	-	2.2	2.7	Volt	
Slope Efficiency	η	3.75mW-1.25mW	0.3	0.6	-	mW/mA	
		I _{3.75mW} -I _{1.25mW}					
Beam Divergence (FWHM)	Parallel	$\theta //$	P _o =5mW	5	8	12	deg.
	Perpendicular	$\theta \perp$	P _o =5mW	28	32	34	deg.
Lasing Wavelength	λ	P _o =5mW	640	655	660	nm	

⊙ $\theta //$ and $\theta \perp$ are defined as the angle within which the intensity is 50% of the peak value.

⊙ Measuring Conditions : Pulse width=5 μ s , Duty cycle=5%

Typical characteristic curves





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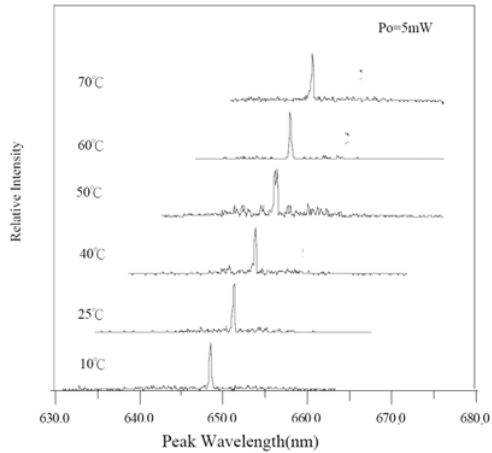
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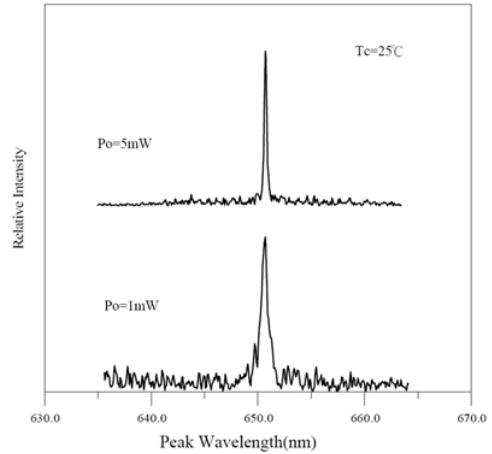
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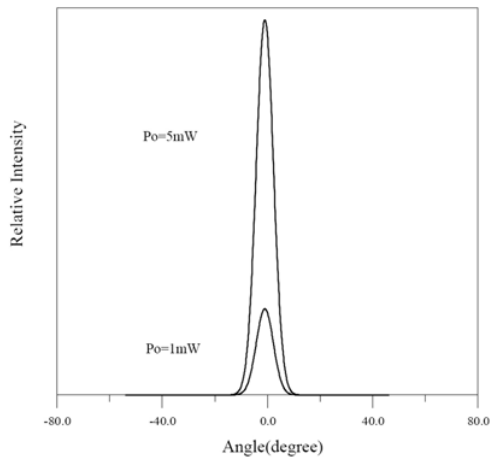
Lasing Spectrum v.s. Temperature



Lasing Spectrum v.s. Optical Output Power



Far-Field Pattern(Parallel) vs. Optical Output



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

