

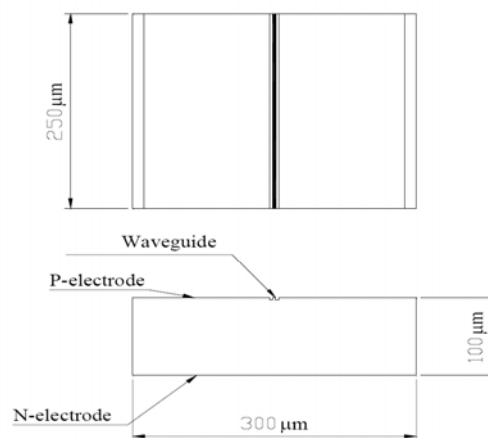


CHIP-650-P5

■ 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	Po	7	mW
Reverse Voltage	Vr	2	V
Operation Temperature	Top	-10~+40	$^\circ\text{C}$
Storage Temperature	Tstg	-15~+85	$^\circ\text{C}$



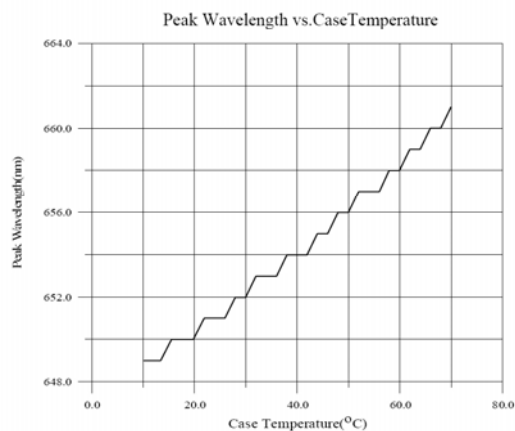
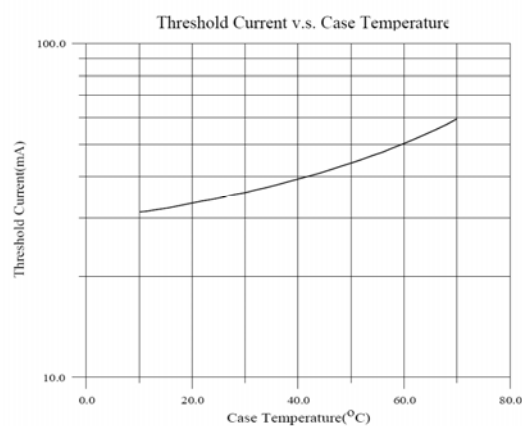
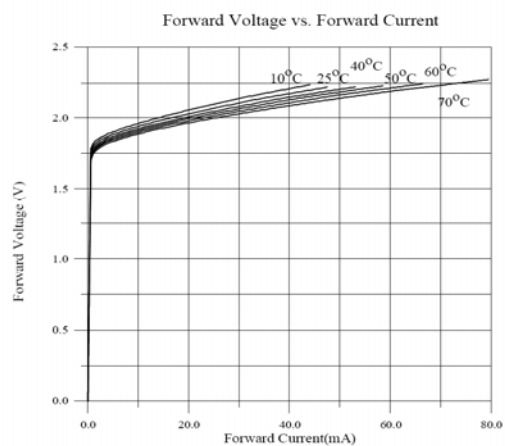
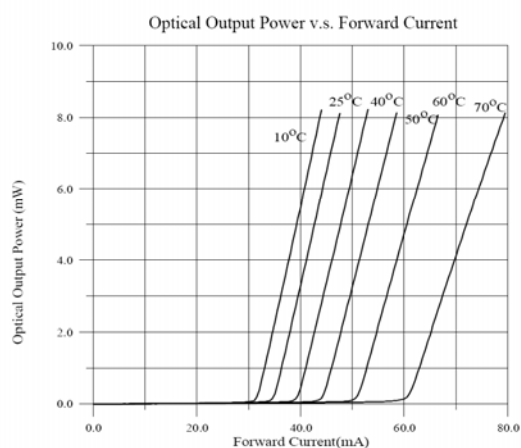
Electrical and Optical Characteristics (Tc=25°C)

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	$\frac{3.75\text{mW}-1.25\text{mW}}{I_{3.75\text{mW}}-I_{1.25\text{mW}}}$	0.3	0.6	-	mW/mA
Beam Divergence (FWHM)	Parallel	$\theta //$	5	8	12	deg.
	Perpendicular	$\theta \perp$	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=5μs, Duty cycle=5%

Typical characteristic curves





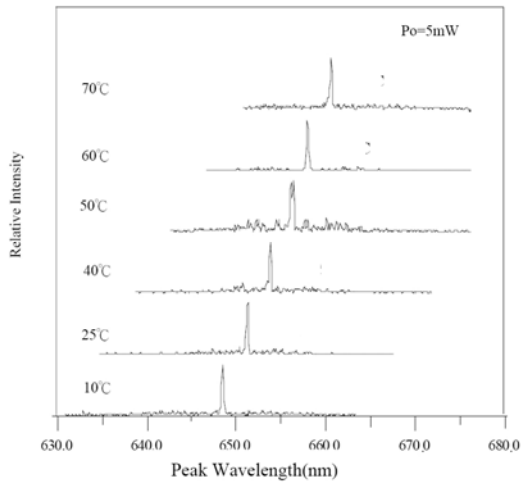
ROITHNER LASERTECHNIK

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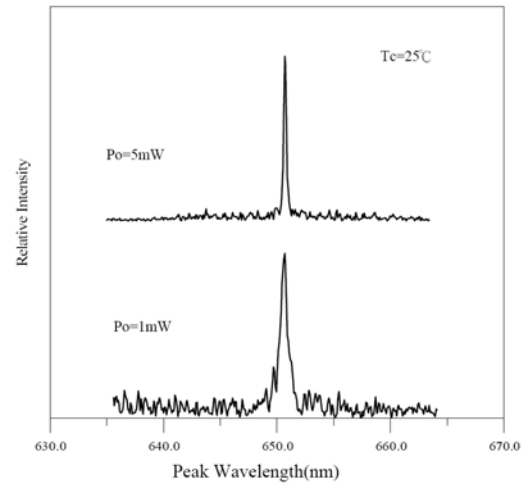
Tel.: ++43 1 586 52 43-0, Fax -44, office@roithner-laser.com



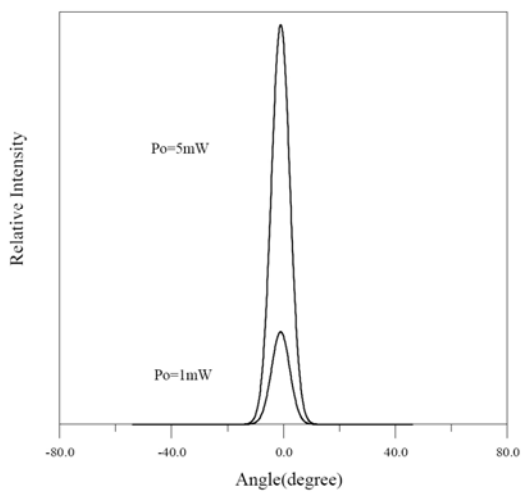
Lasing Spectrum v.s. Temperature



Lasing Spectrum v.s. Optical Output Power



Far-Field Pattern(Parallel) vs. Optical Output



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

