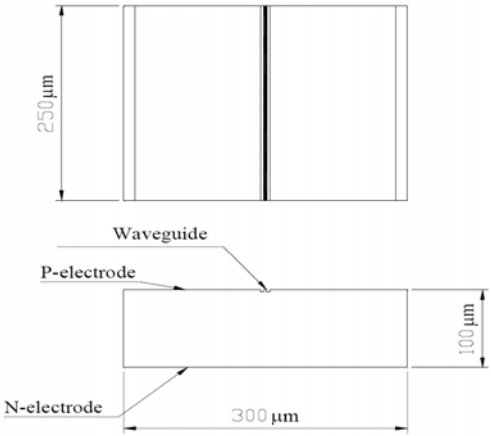
ROITHNER LASERTECHNIK
Wiedner Hauptstraße 76, A-1040 Vienna, Austria
Tel.: ++43 1 586 52 43-0, Fax -44, office@roithner-laser.com

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(Tc=25℃)

Parameter	Symbol	Rating	Unit
Optical Output	Po	**7**	mW
Reverse Voltage	Vr	**2**	V
Operation Temperature	Top	-10～+40	℃
Storage Temperature	Tstg	-15～+85	℃

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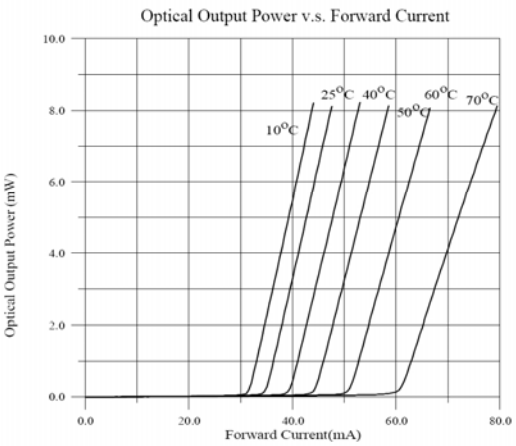
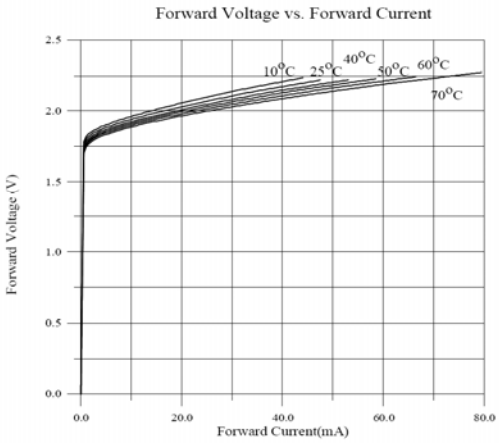
■Electrical and Optical Characteristics(Tc=25℃)

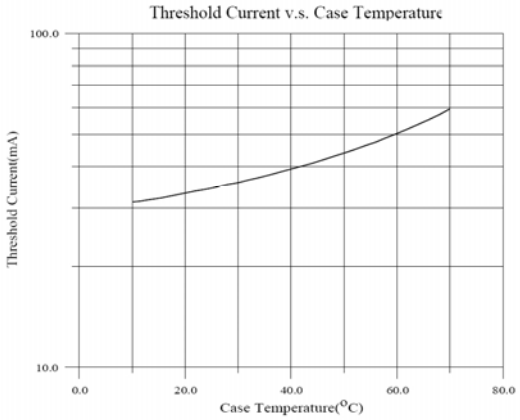
Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	-	-	**23**	**30**	mA
Operating Current		Iop	Po=5mW	-	**29**	**40**	mA
Operating Voltage		Vop	-	-	**2.2**	**2.7**	Volt
Slope Efficiency		η	3.75mW-1.25mW / $I_{3.75}$mW-$I_{1.25}$mW	**0.3**	**0.6**	-	mW/mA
Beam Divergence (FWHM)	Parallel	θ //	Po=5mW	**5**	**8**	**12**	deg.
	Perpendicular	θ ⊥	Po=5mW	**28**	**32**	**34**	deg.
Lasing Wavelength		λ	Po=5mW	**640**	**655**	**660**	nm

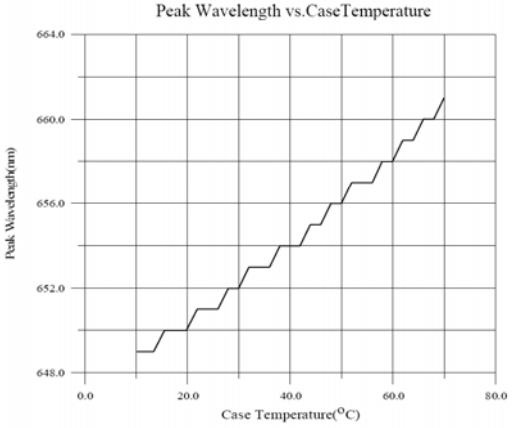
◎θ // and θ ⊥ are defined as the angle within which the intensity is 50% of the peak value.
◎Measuring Conditions : Pulse width=5μs , Duty cycle=5%

■Typical characteristic curves









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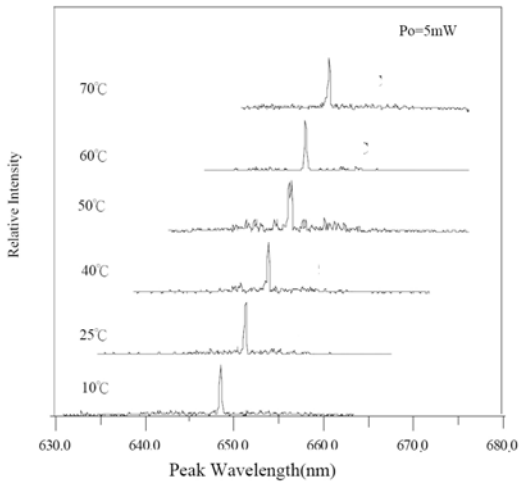
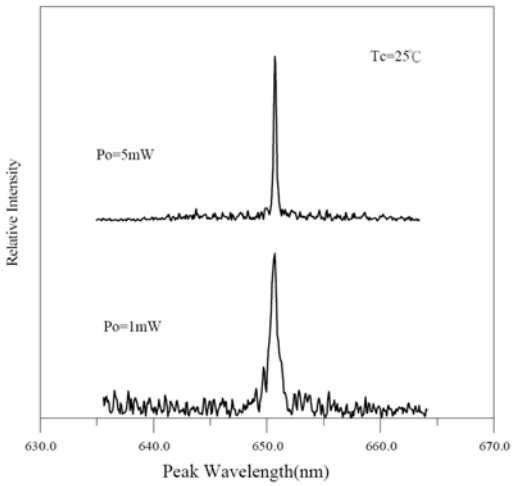
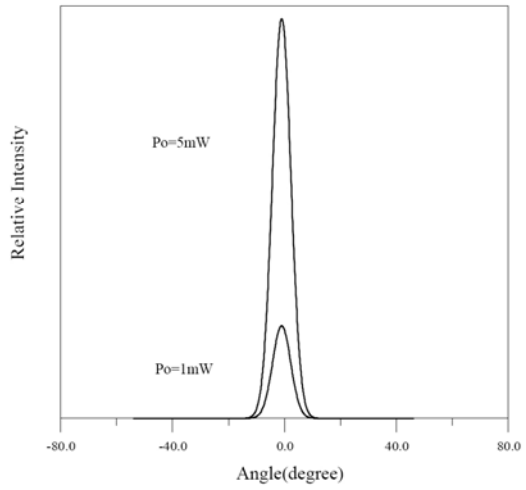
Lasing Spectrum v.s. Temperature



Lasing Spectrum v.s.Optical Output Power



Far-Field Pattern(Parallel) vs.Optical Output



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