

■ Specifications

(T_c=25 °C¹)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Threshold current		I _{th}	-	-	25	50	mA
Operating current		I _{op}	P _o =10mW	-	35	60	mA
Operating voltage		V _{op}		-	4.8	5.8	V
Wavelength		λ _p		400	406	415	nm
Differential efficiency		η _d	$\frac{6mW}{I(10mW)-I(4mW)}$	0.7	1.1	1.6	mW/mA
Half intensity angle ³ ⁴	Parallel	θ _{//}	P _o = 5mW	6.0	9.5	12.0	°
	Perpendicular	θ		15	20	24	°
Misalignment angle ⁴	Parallel	Δθ _{//}		-2.5	-	2.5	°
	Perpendicular	Δθ		-3.0	-	3.0	°

¹ T_c : Case temperature

² Initial value, CW (Continuous Wave) drive

³ Angle at 50% peak intensity (full-width at half-maximum)

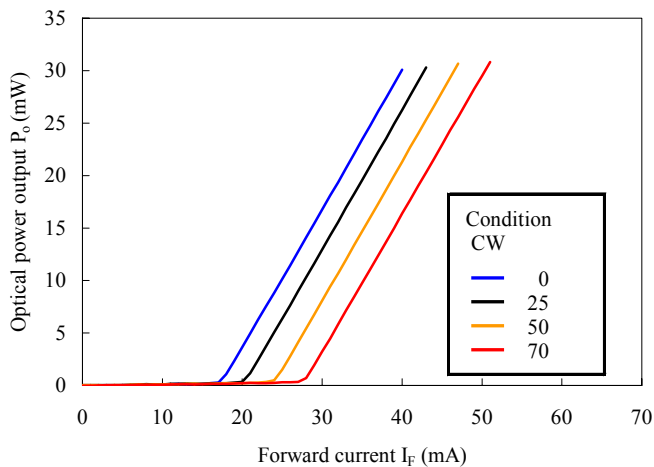
⁴ Parallel to the junction plane (X-Z plane)

Perpendicular to the junction plane (Y-Z plane)

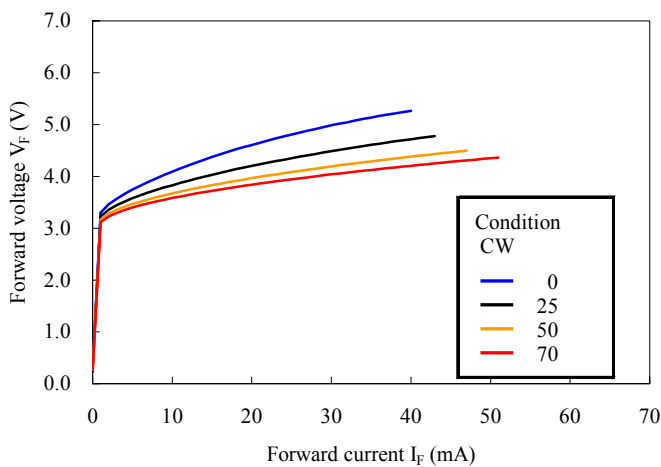
(Notice)

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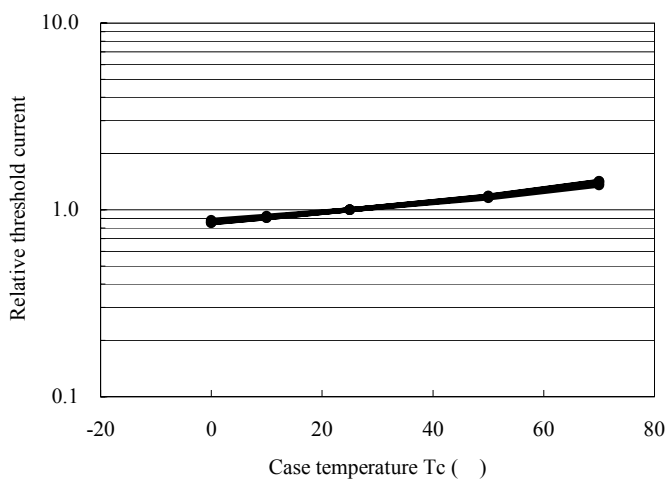
■ Optical power output – Forward current



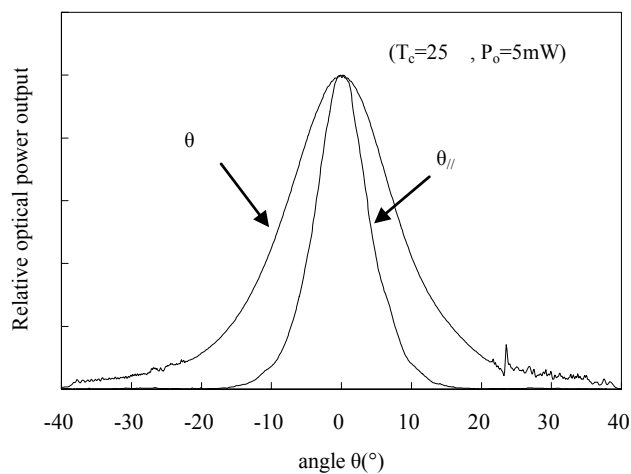
■ Forward voltage – Forward current



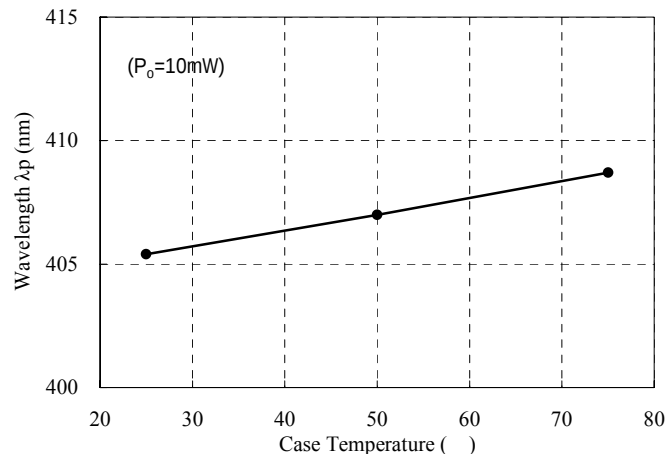
■ Case temperature dependence of threshold current



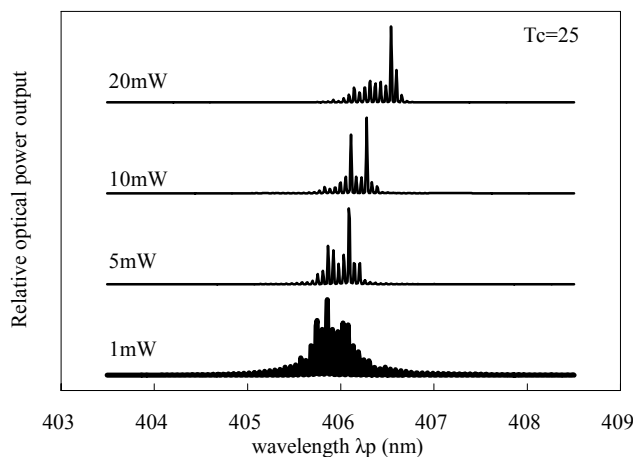
■ Far field pattern (FFP)



■ Case temperature dependence of wavelength



■ Optical power dependence of Lasing spectrum



Note) Characteristics shown in diagrams are typical values.(not assurance value)

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(Precautions)

- (1) This products is designed for use in the following application areas;

* OA equipment	* Audio visual equipment	* Home appliance
* Telecommunication equipment (Terminal)	* Measuring equipment	
* Tooling machines	* Computers	

If the use of the product in the above application areas is for equipment listed in paragraphs (2) or (3), please be sure to observe the precautions given in those respective paragraphs.

- (2) Appropriate measures, such as fail-safe design and redundant design considering the safety design of the overall system and equipment, should be taken to ensure reliability and safety when this product is used for equipment which demands high reliability and safety in function and precision, such as ;

* Transportation control and safety equipment (aircraft, train, automobile etc.)
* Traffic signals * Gas leakage sensor breakers * Rescue and security equipment
* Other safety equipment

- (3) Please do not use this product for equipment which require extremely high reliability and safety in function and precision, such as ;

* Space equipment	* Telecommunication equipment (for trunk lines)
* Nuclear power control equipment	* Medical equipment

- (4) Please contact and consult with a Sharp sales representative if there are any questions regarding interpretation of the above three paragraphs.

3. Please contact and consult with a Sharp sales representative for any questions about this product.

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