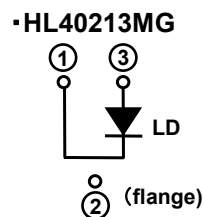
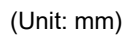


405nm/400mW Violet Laser Diode

Internal Circuit



Application

- Bio & Medical
- Measurement
- 3D Printer

Absolute Maximum Ratings (Tc=25°C)

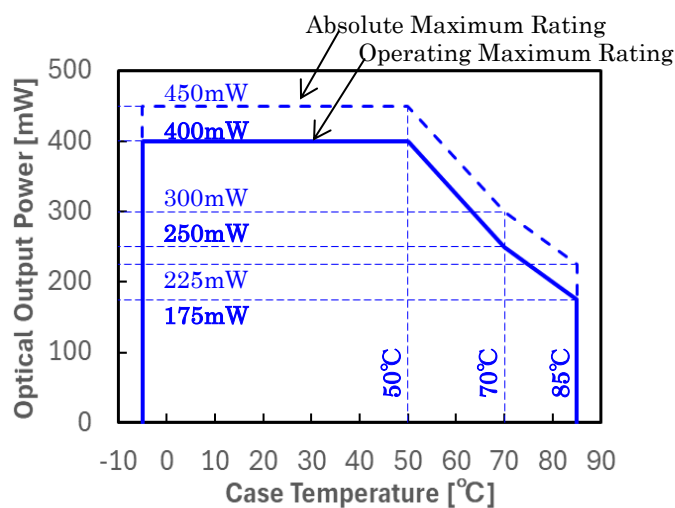
Item	Symbol	Ratings	Unit
Optical output power (*1)	P _o	450	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage (*2)	V _{R(PD)}	15	V
Operating Temperature (*1)	T _{opr}	-5 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

*1 See the graph for the “Recommended Operating Range”.

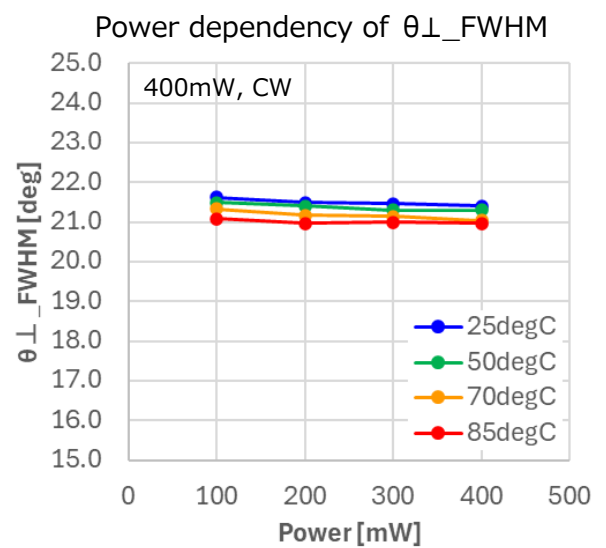
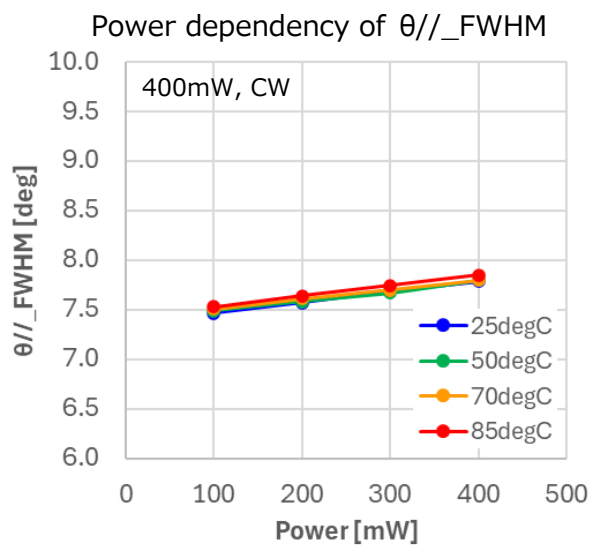
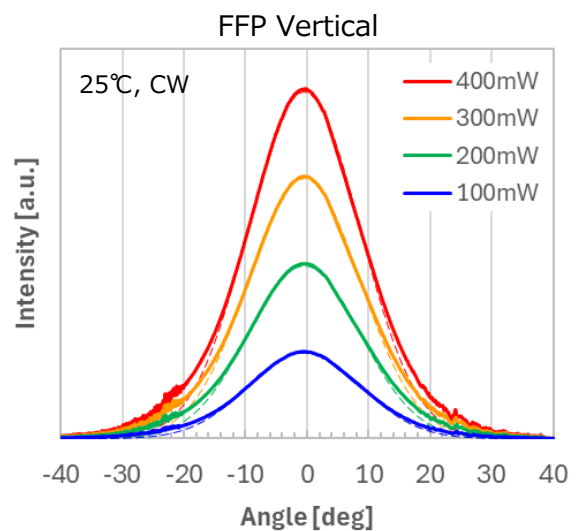
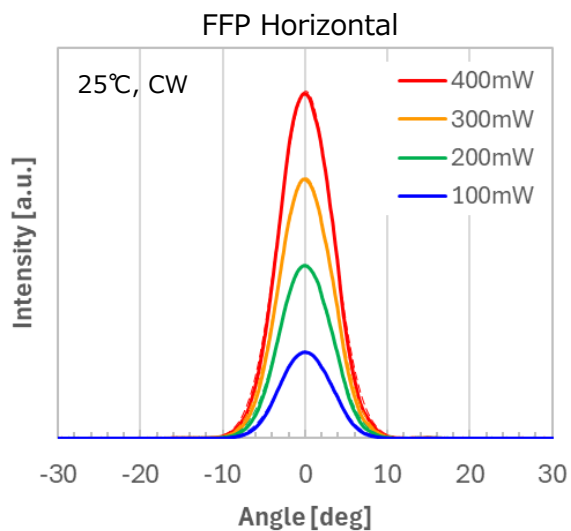
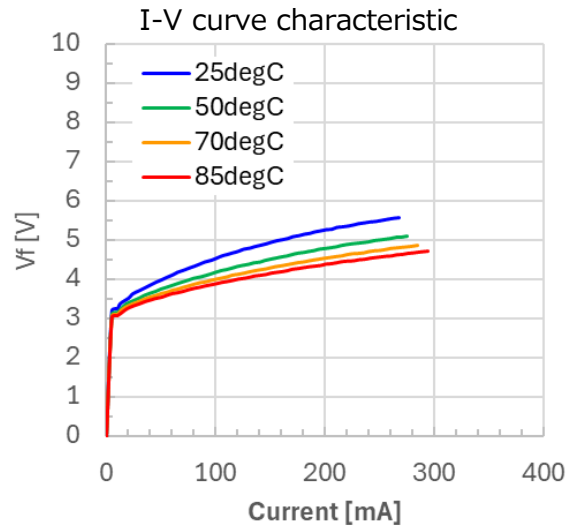
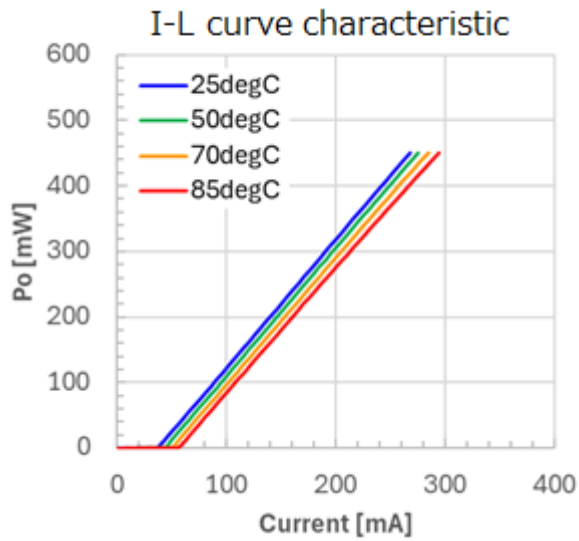
Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	-	35	65	mA	-
Operating current	I _{op}	-	250	350	mA	P _o =400mW
Operating voltage	V _{op}	-	5.5	7.0	V	P _o =400mW
Beam divergence Parallel to the junction	θ _{//}	6	8	10	°	P _o =400mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	15	20	25	°	P _o =400mW, FWHM
Lasing Wavelength	λ _p	400	405	410	nm	P _o =400mW
Monitor Current (*2)	I _s	0.05	0.25	1.2	mA	P _o =400mW V _{R(PD)} =5V

*2 for only initial checking and for only HL40211MG type

Recommended Operating Range

Typical Characteristic Curves



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