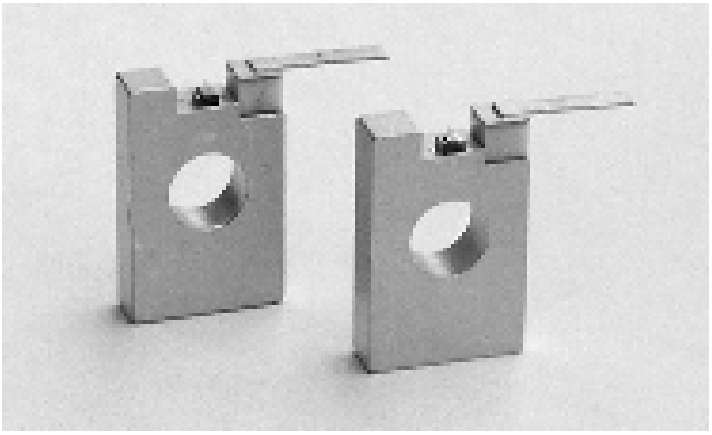
HAMAMATSU

Preliminary Data

680nm 400mW CW Laser Diode

L8048-06



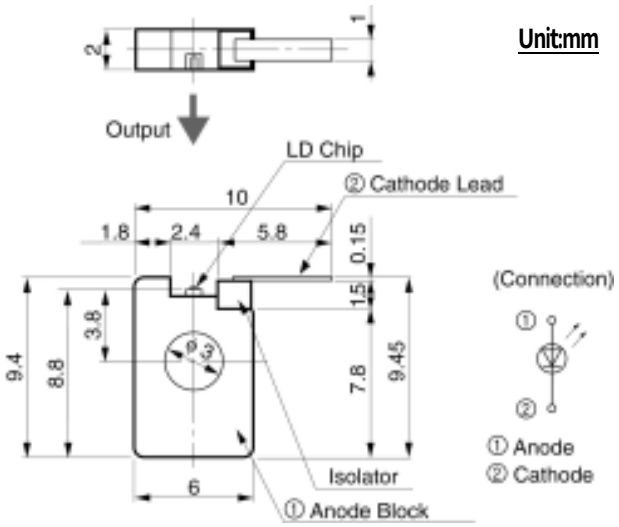
■ FEATURES :

High output power & high brightness
- **400mW CW Output Power**
- **200μm x 1μm Emitting Area**

High Stability
Long Life
Compact

■ APPLICATIONS :

Pumping source for Solid State Laser
Printing
Medical Instrument
Measuring Instrument
Marking



■ ABSOLUTE MAXIMUM RATINGS

(Top(c)=25°C)

Parameter	Symbol	Value	Unit
Radiant Output Power	Øe	0.5	W
Reverse Voltage	V_R	2	V
Operating Temperature	Top(c)	-10 to +30	°C
Storage Temperature	Tstg	-40 to +80	°C

■ ELECTRICAL AND OPTICAL CHARACTERISTICS

($Top_{(c)}$=25°C)

Parameter	Symbol	Condition	Value			Unit
			Min.	Typ.	Max.	
Radiant Output Power	Øe	I_F =0.7A	-	0.4	-	W
Peak Emission Wavelength	λp	I_F=0.7A	670	680	690	nm
Spectral Radiation Half Bandwidth	Δλ	I_F =0.7A	-	3	-	nm
Forward Voltage	V_F	I_F =0.7A	-	2.2	2.6	V
Beam Spread Angle : Parallel	θ//	I_F=0.7A	-	8	-	degree
: Vertical	θ⊥	FWHM	-	30	-	degree
Lasing Threshold Current	Ith	-	0.25	0.35	0.45	A

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Figure 1: Radiant Output Power Figure v.s. Forward Current (Typ.)

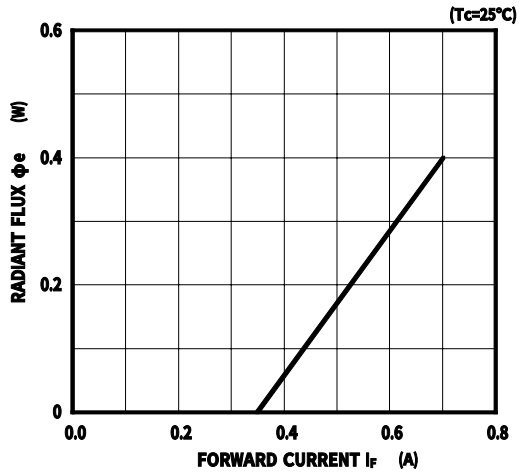


Figure 2: Emission Spectrum (Typ.)

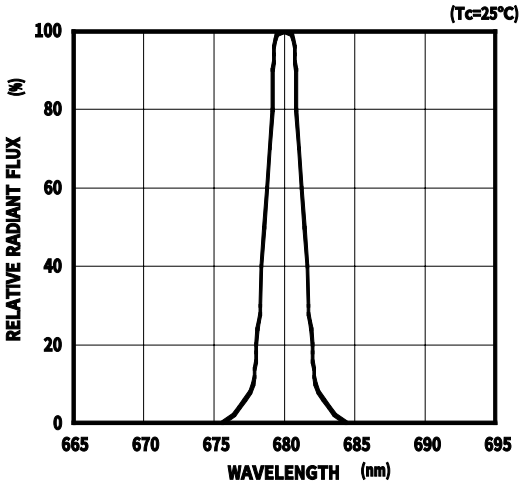
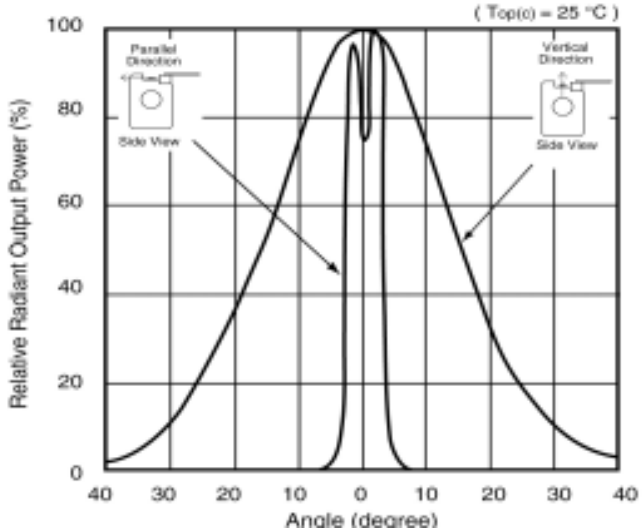


Figure 3: Directivity (Typ.)



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