650nm low power single mode laser diode

RLD65MQX1 Data Sheet

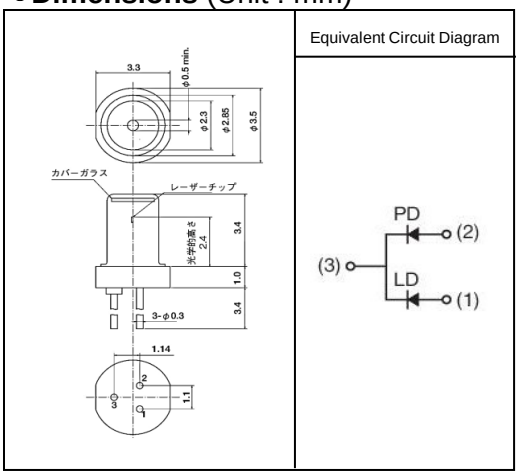
●Application

Sensors

Barcode scanner

etc

●Dimensions (Unit : mm)



●Features

1) Optical output power : CW10mW
2) Single Mode
3) Ultra small type ϕ3.5metal stem adoption

●Absolute maximum ratings (T_c= 25°C)

Parameter		Symbol	Ratings	Unit
Optical output power		P_O	10	mW
Reverse voltage	Laser diode	V_R	2	V
	Photo diode	V_R(PD)	20	V
Operating temperature		Top	−10 to +70	°C
Storage temperature		Tstg	−40 to +85	°C

●Electrical and optical characteristics (T_c= 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold curret	I_{th}	−	15	40	mA	-
Operating current	I_{op}	−	24	50	mA	P_O=5mW
Operating voltage	V_{op}	−	2.3	2.8	V	P_O=5mW
Output efficiency	η	0.5	0.85	1.2	W/A	2mW/ (I (5mW)- I (3mW))
Monitor current	Im	0.1	0.2	0.5	mA	P_O=5mW, V_R(PD)=15V
Parallel beam divergence	$\theta_{//}$	7	9	12	deg.	P_O=5mW
Perpendicular beam divergence	$\theta_{\perp}$	20	27	35	deg.	
Parallel beam tolerance	$\Delta\theta_{//}$	−2.5	0	2.5	deg.	
Perpendicular beam tolerance	$\Delta\theta_{\perp}$	−3	0	3	deg.	
Emission point accuracy	ΔXYZ	−100	0	100	μm	-
Lasing wavelength	λ	652	660	668	nm	P_O=5mW

●Electrical and Optical characteristics

Fig.1 I-L,V Temperature properties

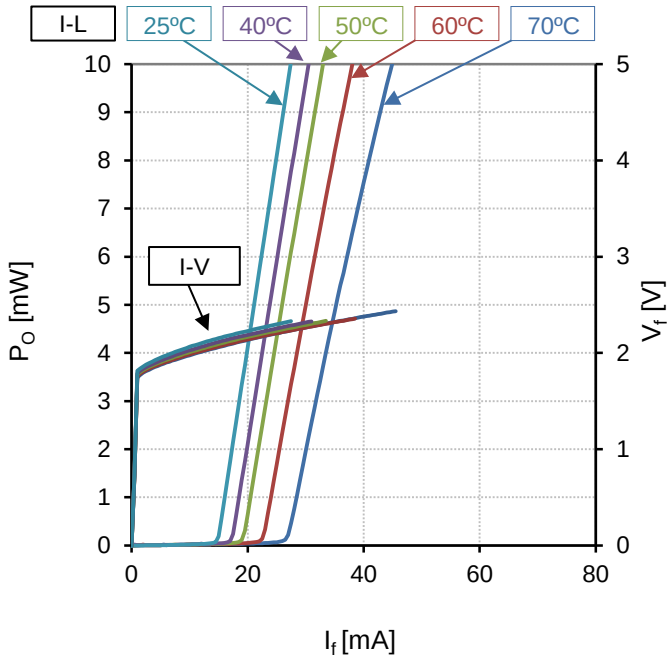


Fig.2 Im-L

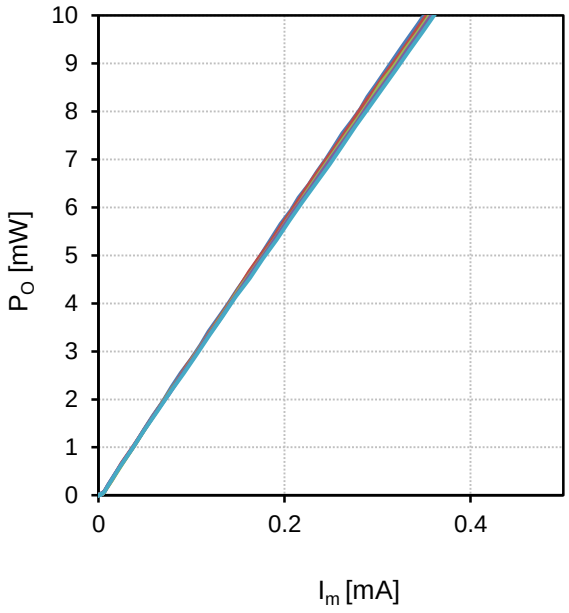


Fig.3 FFP

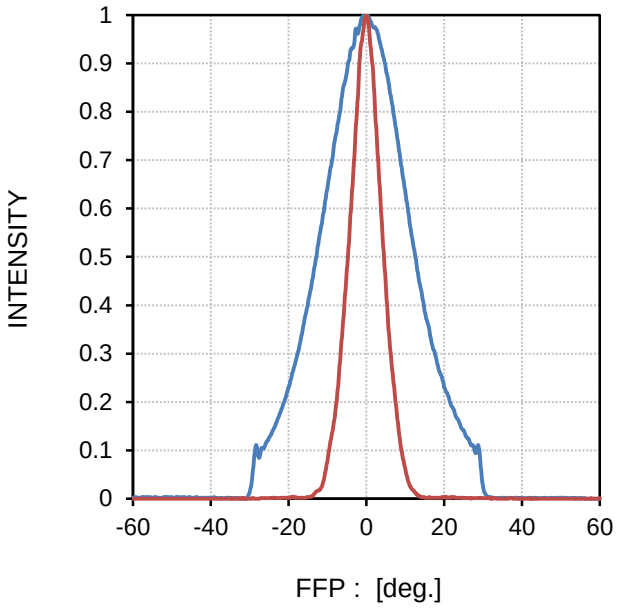
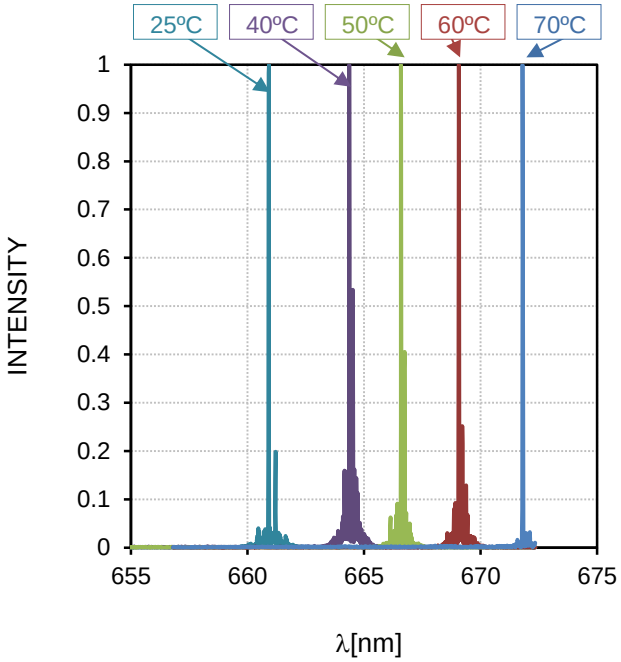


Fig.4 λ



*This data is made from the result of having measured the sample extracted at random.
Therefore, it is not what showed the ability of the whole product.

Condition :	CW, Po=5mW
Equipment :	ADVANTEST LASER DIODE TEST SYSTEM Q8652
Day :	2014.10.22
Person :	Kiyoko Tanaka

Notes

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