780nm High Speed Multi-beam Lasers

RLD2BPNK2

A long-run product with market-driven high reliability. Matching to various needs.
This is the laser diode for high-speed print corresponding laser printers.

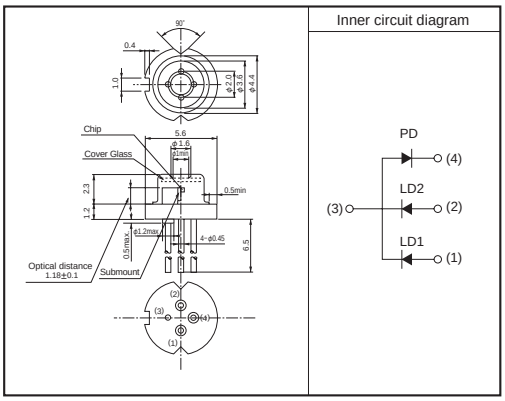
●Applications

PPC
High-speed printer
Optical sensor
etc.

●Features

1) Optical power output : CW10mW
2) Beam pich : 90μm
3) Single mode.
4) Low droop characteristics.
5) High-precision ϕ5.6 metal stem.

●Dimensions (Unit : mm)



●Absolute maximum ratings (Tc=25°C)

Parameter		Symbol	Limits	Unit
Output		Po	10	mW
Reverse voltage	Laser	VR	2	V
	Photodiode	VR (PIN)	20	V
Operating temperature		Top	-10 to +60	℃
Storage temperature		Tstg	-40 to +85	℃

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold current	Ith	5	10	25	mA	-
Operating current	Iop	-	20	60	mA	Po=6mW
Operating voltage	Vop	-	1.8	2.5	V	Po=6mW
Differential efficiency	η	0.3	0.55	0.8	mW/mA	5mW/(I(6mW)-I(1mW)
Monitor current	Im	0.5	1.0	1.5	mA	Po=6mW
Parallel divergence angle	θ〃	7	10	14	deg	Po=6mW
Perpendicular divergence angle	θ⊥	25	30	38	deg	
Parallel deviation angle	Δφ〃	-2	0	2	deg	
Perpendicular deviation angle	Δφ⊥	-3	0	3	deg	
Peak emission wavelength	λ	785	792	800	nm	Po=6mW
Droop	ΔP	-	-	10	%	Po=6mW
Astigmation	ΔI	-	-	10	μm	Po=6mW, NA=0.55
Emission point distance	—	89	90	91	μm	—

●Electrical and optical characteristics curves (Tc=25°C)

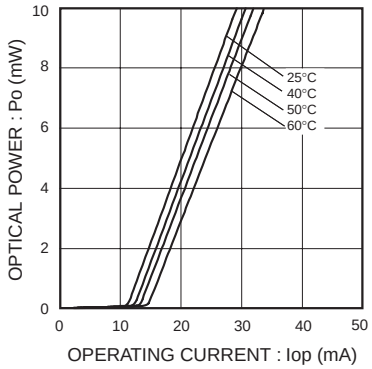


Fig.1 Optical output vs. operating current

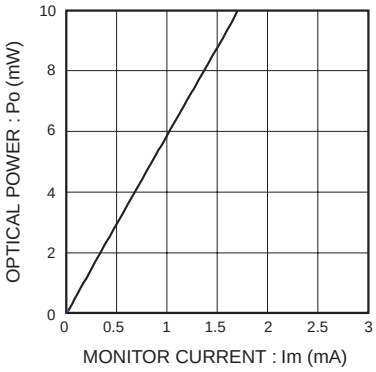


Fig.2 Monitor current vs. optical intensity

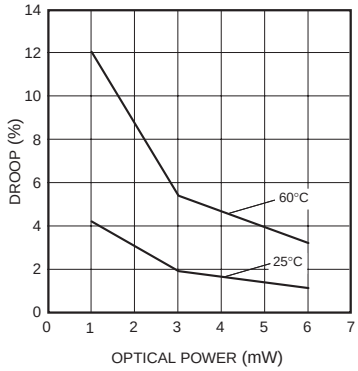


Fig.3 Dependence of droop on optical power and temperature

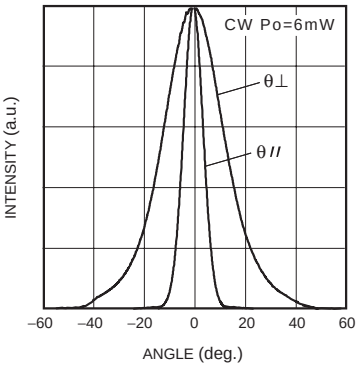


Fig.4 Parallel divergence angle

Notes

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