DVD-Record, High power red laser diode RLD65PZB5

The RLD65PZB5 is the red high-output semiconductor laser developed since it corresponded to the high speed needs of the optical pick up for DVD record.

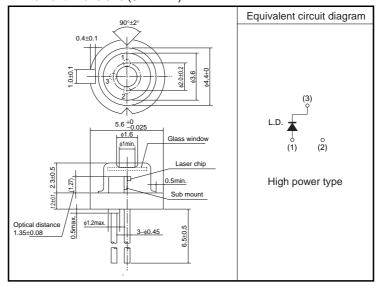
Applications

DVD±R DVD±RW DVD-RAM

Features

- Absolute maximum optical power output: Pulse 240mW
- 2) High speed response :~2ns (conventional ratio 50%)
- 3) For field pattern Aspect Ratio: 1.7
- 4) φ5.6mm small package (optical height 1.35mm)

●External dimensions (Unit : mm)



● Absolute maximum ratings (Tc=25°C)

Parameter	Symbol	Limits	Unit
Output	Po	Pulse 240	mW
Laser reverse voltage	VR	2	V
Operating temperature	Тор	-10 to +70 (Pulse)	°C
Storage temperature	Tstg	-40 to +85	°C

Pulse conditions : pulse width < 80ns duty 50%

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

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Threshold current	I _{th} *1	_	60	75	mA	CW
Operating current	lop*1	_	150	200	mA	CW : Po=80mW
Operating voltage	V _{op} *1	_	2.7	3.2	V	CW: Po=80mW
Differential efficiency	η* ¹	0.7	1.0	1.3	mW/mA	CW: 30mW / (I(80mW) –I(50mW))
Monitor current	Im*1	_	_	_	mA	_
Parallel divergence angle	θ // *1	8	10	13	deg	CW : Po=100mW
Perpendicular divergence angle	θ ⊥*1	15	17	19		
Parallel deviation angle	Δφ //*1	-2.0	0	+2.0		
Perpendicular deviation angle	Δ φ ⊥*1	-3.0	0	+3.0		
Emission point accuracy	ΔXYZ*1	-80	0	+80	μm	_
Peak emission wave length	λ*1	650	658	662	nm	CW: Po=80mW
Astigmatism	As*2	_	_	6	μm	CW : Po=80mW

^{*} θ // and θ $_{\perp}$ are defined as the angle within which the intensity is 50% of the peak value.

•Electrical and optical characteristics curve

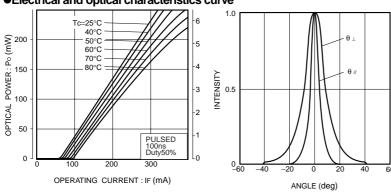


Fig.1 Optical output vs. operating current

Fig.2 Far field pattern

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