Infra-red Laser for Sensor, Printer RLD78MZGM

Single mode infra-red laser developed for Sensor. Good temperature characteristics made, most suitable for the printer.

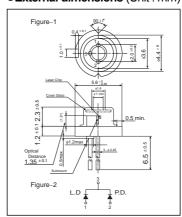
Applications

Optical sensor Laser printer

Features

- Loaded on industry's standard φ5.6metal package.
- 2) Normal pole type. (M type)
- 3) Excellent temperature characteristic

●External dimensions (Unit : mm)



●Absolute maximum ratings (Tc=25°C)

Parameter		Symbol	Limits	Unit		
Output		Po	5	mW		
Reverse voltage	Laser	VR	2	V		
	PIN photodiode	V _R (PIN)	30	V		
Operating temperature		Topr	-10 to +60	°C		
Storage temperature		Tstg	-40 to +85	°C		

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

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Threshold current	Ith	-	35	60	mA	-
Operating current	Гор	-	45	70	mA	Po=3mW
Operating voltage	Vop	-	1.9	2.3	٧	Po=3mW
Differential efficiency	η	0.1	0.25	0.6	mW/mA	-
Monitor current	Im	0.1	0.2	0.6	mA	Po=3mW
Parallel divergence angle	θ//*	8	11	15	deg	Po=3mW
Perpendicular divergence angle	θ⊥*	20	37	45	deg	Po=3mW
Parallel tolerance angle	Δφ //	-2	0	2	deg	Po=3mW
Perpendicular tolerance angle	Δφ ⊥	-3	0	3	deg	Po=3mW
	ΔΧ		0	100	μm	-
Emission point accuracy	ΔΥ	-100				
	ΔZ					
Lasing wavelength	λ	770	785	810	nm	Po=3mW
Astigmatism	ΔΙ	_	15	-	μm	Po=3mW

^{*} θ //, θ \perp are defined as full width of half maximim

•Electrical and optical characteristics curve

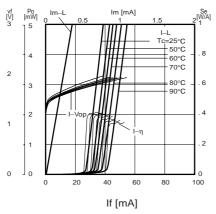


Fig.1 Electrical characteristics vs. package temperature

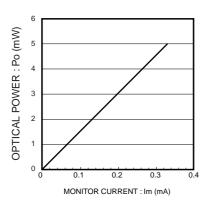


Fig.3 Monitor current vs. optical output

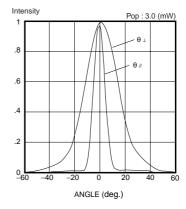


Fig.2 Far field pattern

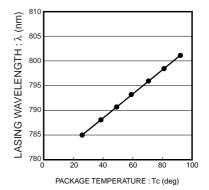


Fig.4 Package tempareture vs. wavelength

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