AlGaAs laser diode

RLD78PZW4

The RLD78PZW4 is infrared laser diode high power output type (pulse 230mW). This is the best for optical disk drive use, such as CD-R / RW.

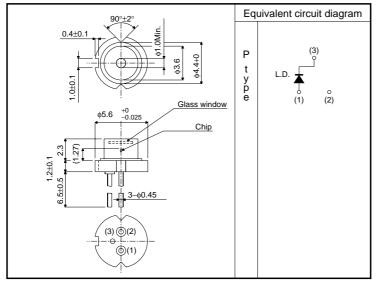
Applications

Max. ×52 speed CD-R / RW drives.

Features

- 1) Absolute maximum optical power output : pulse 230mW
- 2) Wave length : Typ. 784nm
- 3) ¢5.6mm small packages

•External dimensions (Unit : mm)



●Absolute maximum ratings (Tc=25°C)

Parameter		Symbol	Limits	Unit
Output		Po	Pulsed 230 Pulse condition : pulse 70nsec, Duty50%	mW
Reverse	Raser	Vr	2	V
voltage	PIN photodiode	VR(PIN)	-	-
Operating temperature		Topr	-10 to +75 (Pulsed)	°C
Storage temperature		Tstg	-40 to +85	°C



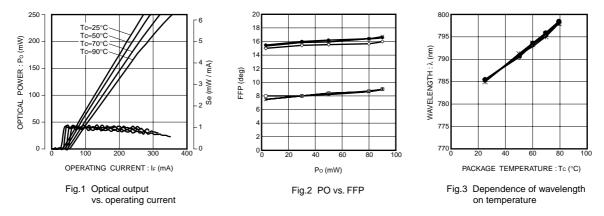
Laser Diodes

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions	
Threshold current	lth	-	30	50	mA	_	
Operating current	lop	-	133	165	mA		
Operating voltage	Vop	-	2.1	2.5	V		
Differential efficiency	η	0.7	0.9	1.4	mW / mA		
Parallel divergence angle	θ //*	8	9	10	deg	Po=90mW	
Perpendicular divergence angle	θ ⊥*	15	17	19	deg		
Parallel deviation angle	Δφ //	-2	0	+2	deg		
Perpendicular deviation angle	$\Delta \phi \perp$	-3	0	+3	deg		
Emission point accuracy	ΔΧ ΔΥ ΔΖ	-80	0	+80	μm	_	
Peak emission wavelength	λ	779	784	789	nm	Po=90mW	
Astigmatism	$\Delta \ell$	-	_	6	μm	NA=0.15, Po=90mW	

•Electrical and optical characteristics (Tc=25°C, CW)

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

•Electrical and optical characteristics curves



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