

Red Laser for DVD-player, Combination

RLD65MPT5

Glass-less structure Red Laser for DVD-player, Combination.

Low lth & good temperature characteristics made by suitability of Multi Quantum Well.

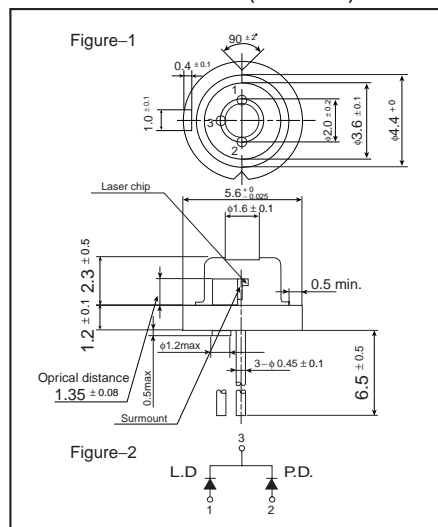
●Applications

DVD-player
COMBO drive
Bar cord scanner
Sensor

●Features

- 1) Glass less structure
- 2) Low lth : 20mA ($P_o=5\text{mW}$, $T_c=25^\circ\text{C}$)
- 3) Excellent temparetuer characteristic

●External dimensions (Unit : mm)



●Absolute maximum ratings ($T_c=25^\circ\text{C}$)

Parameter		Symbol	Limits	Unit
Output		P_o	7	mW
Reverse voltage	Laser	V_R	2	V
	PIN photodiode	V_R (PIN)	30	V
Operating temperature		T_{opr}	-10 to +70	$^\circ\text{C}$
Storage temperature		T_{stg}	-40 to +85	$^\circ\text{C}$

Laser Diodes

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold current	I_{th}	–	20	60	mA	–
Operating current	I_{op}	–	30	70	mA	$P_o=5mW$
Operating voltage	V_{op}	–	2.3	2.6	V	$P_o=5mW$
Differential efficiency	η	0.2	0.4	0.8	mW/mA	–
Monitor current	I_m	0.1	0.2	0.5	mA	$P_o=5mW$
Parallel divergence angle	$\theta_{//}^*$	6.5	8	10	deg	$P_o=5mW$
Perpendicular tolerance angle	θ_{\perp}^*	20	27	35	deg	$P_o=5mW$
Parallel tolerance angle	$\Delta\phi_{//}$	–2	0	2	deg	$P_o=5mW$
Perpendicular tolerance angle	$\Delta\phi_{\perp}$	–3	0	3	deg	$P_o=5mW$
Emission point accuracy	ΔX	–80	0	80	μm	–
	ΔY					
	ΔZ					
Lasing wavelength	λ	645	655	662	nm	$P_o=5mW$
Astigmatism	Δl	–	–	10	μm	$P_o=5mW$

* θ_{\perp} , $\theta_{//}$ are defined as full width of half maximum.

●Electrical and optical characteristics curves

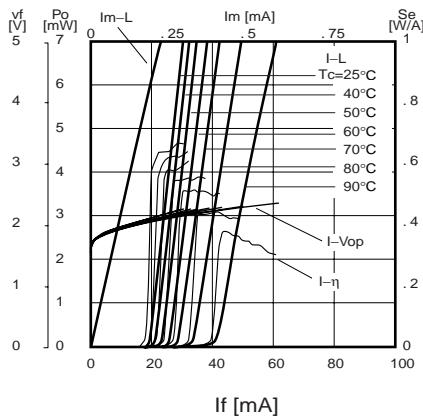


Fig.1 Electrical characteristics vs. package temperature

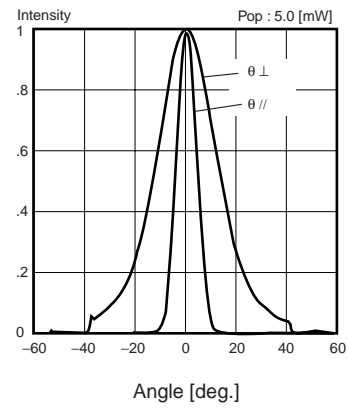


Fig.2 Far field pattern

Laser Diodes

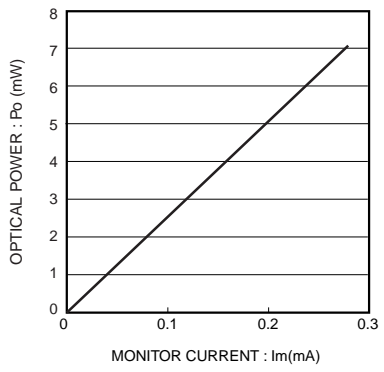


Fig.3 Monitor current vs. optical output

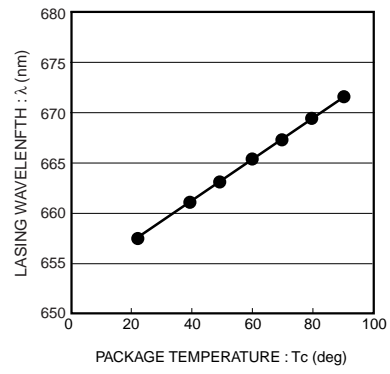


Fig.4 Package temperature vs. wavelength

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