

# 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.

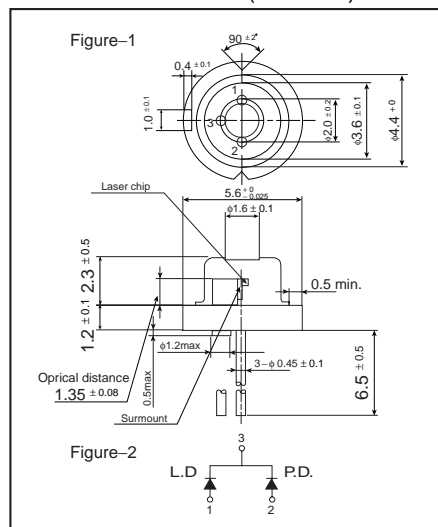
### ●Applications

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	$\eta$	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	$\theta_{\perp}^*$	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	$\Delta X$	-80	0	80	$\mu m$	–
	$\Delta Y$					
	$\Delta Z$					
Lasing wavelength	$\lambda$	645	655	662	nm	$P_o=5mW$
Astigmatism	$\Delta l$	–	–	10	$\mu m$	$P_o=5mW$

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

●Electrical and optical characteristics curves

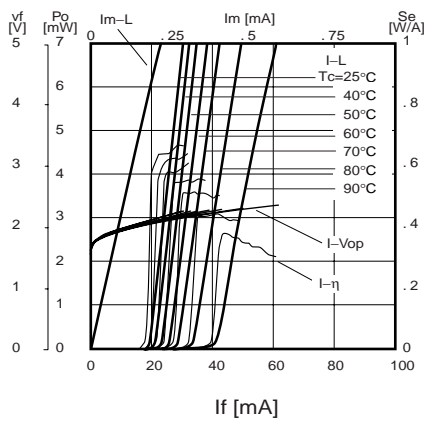


Fig.1 Electrical characteristics vs. package temperature

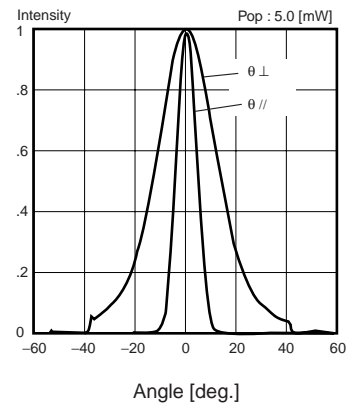


Fig.2 Far field pattern

Laser Diodes

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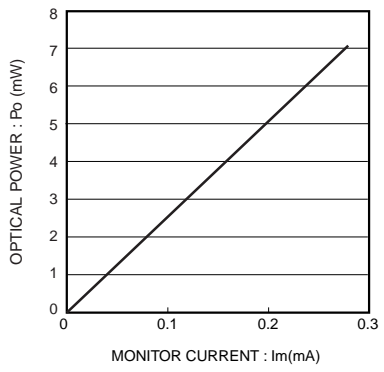


Fig.3 Monitor current vs. optical output

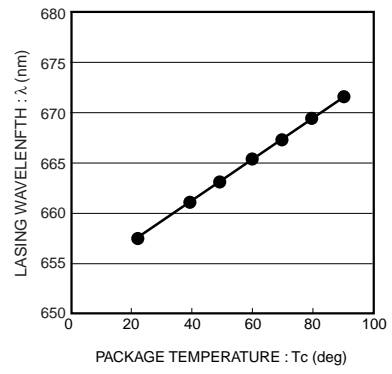


Fig.4 Package temperature vs. wavelength

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