

LD-660nm-200mw

FOR OPTICAL INFORMATION SYSTEMS

This type is under development. Therefore, please note that this data sheet may be changed without any notice.

DESCRIPTION

LD-660nm-200mw is a high-power, high-efficient AlGaInP semiconductor laser which provides a stable, single transverse mode oscillation with emission wavelength of 658nm and standard pulse light output of 350mW.

LD-660nm-200mw has a real-index-waveguide which improves the slope efficiency (reduction of the operating current) and the astigmatic distance.

Also, LD-660nm-200mw has a window-mirror-facet which improves the maximum output power. That leads to highly reliable and high-power operation at 75 °C.

ABSOLUTE MAXIMUM RATINGS (Note 1) FEATURES

High Output Power: 350mW (Pulse)
 High Efficiency: 0.95W/A (typ.)
 Visible Light: 660nm (typ.)
 Low Aspect Ratio ($\theta_{\perp} / \theta_{//}$): 1.7 (typ.)
 Low Astigmatic Distance: 1 μ m (typ.)

Symbol	Parameter	Conditions	Ratings	Unit
Po	Light output power	CW	200	mW
		Pulse(Note 2)	350	
VRL	Reverse voltage	-	2	V
Tc	Case temperature	-	-10 ~ +75	°C
Tstg	Storage temperature	-	-40 ~ +100	°C

Note1: The maximum rating means the limitation over which the laser should not be operated even instant time. This does not mean the guarantee of its lifetime. As for the reliability, please refer to the reliability report issued by Quality Assurance Section, HF & Optical Semiconductor Division, Mitsubishi Electric Corporation.

Note2: TARGET SPEC /Condition Duty Cycle: less than 35%, pulse width: less than 30ns

ELECTRICAL/OPTICAL CHARACTERISTICS (Tc=25 °C)

Symbol	Parameter	Test conditions	Min.	Typ.	Max	Unit
I _{th}	Threshold current	CW	-	80	-	mA
I _{op}	Operating current	CW, Po=160mW	-	210	230	mA
V _{op}	Operating voltage	CW, Po=160mW	-	2.5	3.0	V
η	Slope efficiency	CW, Po=160mW	-	0.95	-	mW/mA
λ_p	Peak wavelength	CW, Po=160mW	654	660	664	nm
$\theta_{//}$	Beam divergence angle (parallel)	CW, Po=160mW	7	10	12	°
θ_{\perp}	Beam divergence angle (perpendicular)	CW, Po=160mW	14	17	20	°

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FOR OPTICAL INFORMATION SYSTEMS
OUTLINE DRAWINGS

