

Laser Module LC-LMD-650-04

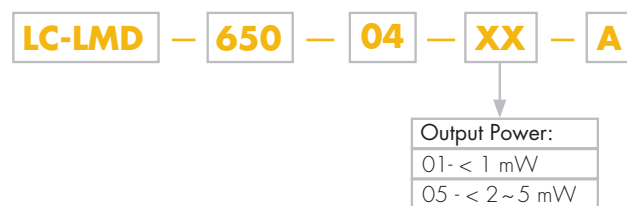
Ø 10.5 mm, 650 nm Laser Module

Features

1. APC (auto power control) IC inside
2. Low current consumption of the APC circuit
3. Surge current protection
4. High quality glass lens for output beam
5. Fixed focus



Part No. Indications



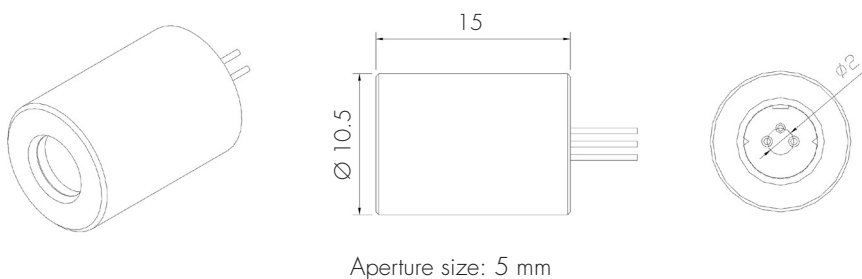
Absolute Maximum Ratings

Item	Symbol	Rating	Unit
Power supply voltage	V_{CC}	3.3	V
Laser Module optical output power	P_o	< 4.5	mW
Operation temperature	T_{opr}	-5 ~ 50	°C
Storage temperature	T_{stg}	-20 ~ 75	°C

Electrical and Optical Characteristics ($T_C = 25\text{ }^\circ\text{C}$)

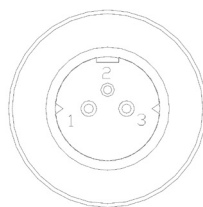
Item	Symbol	Min.	Typ.	Max	Unit	Condition	
Wavelength	λ	645	655	660	nm	$P_o = < 3\text{ mW}$	
Output power	P_{out}	01	-	0.6	0.9	mW	$V_{cc} = 3\text{ V}$
		05	-	3	4.5	mW	$V_{cc} = 3\text{ V}$
Operation current	I_{op}	-	15	25	mA	$P_o = 3\text{ mW}$ $V_{cc} = 3\text{ V}$	
Operation voltage	V_{op}	2.5	-	3.3	Volt		
Laser Beam spot size at 10 m				< 8 mm			
Divergence angle				0.9 mrad			
Mean time to failure (MTTF) 3 mW 25 °C				>10000 hrs			

Outline Dimensions (Units: mm)



Pin Assignment

Pin 1: V_{cc}
Pin 2: GND
Pin 3: NC



A type: Heat sink stand (-)