

LT-RGB-10W-FC-U

RGB/10W /Fiber Coupled Laser/Unpluggable Fiber



■ Features

- RGB Diode Laser
- 200um, 400um,800um Selectable With Unpluggable Fiber

■ Applications

- Bio & Medical
- Industrial Illumination
- Light Source Of Optical Equipments

■ Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Reverse Voltage	V_r r(LD)	2	V
Reverse Current	I_r g(LD)	85	mA
Reverse Current	I_r b(LD)	85	mA
Operating Temperature	T_{opr}	0 ~ +45	°C
Storage Temperature	T_{stg}	-40 ~ +85	°C
Lead soldering temperature (10 sec.)	T_{slid}	260	°C

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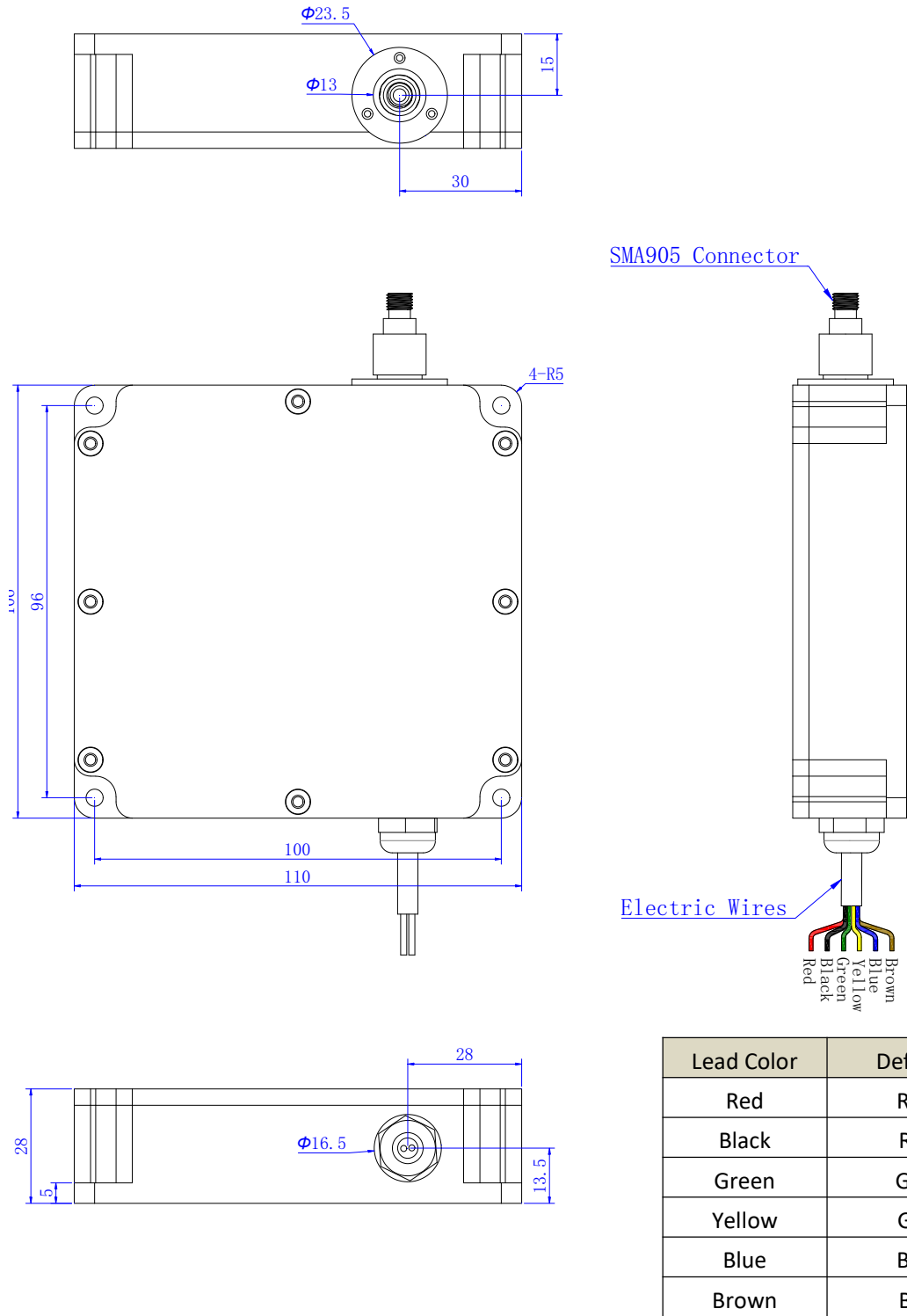
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■ Optical and Electrical Characteristics (Tc=25°C)

Parameter		Symbol	Min	Typ	Max	Unit	Test Condition
Center Wavelength	R	λ_c	632	637	642	nm	Po=10W
	G	λ_c	520	525	530	nm	Po=10W
	B	λ_c	445	450	455	nm	Po=10W
Spectral Width (FWHM)		$\Delta\lambda$	—	2	—	nm	Po=10W
Optical Output Power		Po	9	10	11	W	—
Fiber Type		—	Multi Mode Fiber			—	—
Fiber Core Diameter		—	200,400,800 selectable			um	—
Numerical Aperture		NA	0.22			—	—
Fiber Connector		—	SMA905,FC selectable			—	—
Working Condition		—	CW			—	—
Threshold Current	R	I _{th}	—	340	440	mA	—
	G	I _{th}	150	260	500	mA	—
	B	I _{th}	240	—	440	mA	—
Operating Current	R	I _{op_r}	—	1.3	1.6	A	Po=10W
	G	I _{op_g}	—	1.9	2.3	A	Po=10W
	B	I _{op_b}	—	3.0	3.5	A	Po=10W
Operating Voltage	R	V _{op_r}	—	12	15	V	Po=10W
	G	V _{op_g}	16	19	22	V	Po=10W
	B	V _{op_b}	3.5	—	5.0	V	Po=10W

■ Outline Dimensions



Lead Color	Define
Red	R+
Black	R-
Green	G+
Yellow	G-
Blue	B+
Brown	B-

■ Cautions

1. Laser light can damage the human eye and skin. Do not expose the eye and skin to any laser light directly or through optical lenses. Focused laser beam through optical instruments will increase the chance of eye hazard.
2. The laser needs a stable driver to avoid surges. The instantaneous reverse current and reverse voltage should not exceed the absolute maximum ratings, otherwise it will damage the laser diode.
3. Semiconductor lasers are sensitive to temperature, working at high temperatures will reduce the photoelectric conversion efficiency and accelerate the aging of laser diode. It should be used under adequate heat dissipation or cooling conditions.
4. The laser should be used at the rated current and rated power, the output power is too high will accelerate the aging of laser diode.
5. Semiconductor lasers are electrostatic sensitive devices, anti-static measures should be taken during storage and transportation.
6. Lasers should be stored or work in a dry, ventilated environment to prevent damage to the laser from condensation.
7. The light emitting surface (cavity surface) is the key parts of the laser diode, any handling to damage the cavity surface should be strictly prohibited. It should be ensured that the laser diode is not contaminated, and damaged in mechanical.
8. The fiber should not be bent at large angles, it should be ensured that the diameter of the bend should be more than 300 times the diameter of the fiber.

