

R3 Diode Laser Components

R3 diode laser components are RealLight's AW series multi-function laser modules, providing single-wavelength output with 3 emitters integrated. These fiber-coupled lasers are equipped with aiming beam, featuring superior power stability, excellent beam quality, high reliability and more.

Key Features

- ◆ Excellent beam quality
- ◆ Superior power stability
- ◆ Efficient heat dissipation
- ◆ High reliability
- ◆ Compact size
- ◆ Various wavelengths

Applications

- Medical application
- Pumping source
- Scientific research
- Laser processing

Technical Specifications (25°C)

Package Type		R3			R3-G	
Center Wavelength (nm)		808	915	940	808	976
Optical	CW Output Power / Pop (W)	20	30	30	20	25
	Wavelength Tolerance (nm)	±10			±0.5	
	Spectral Width / Δλ (nm)	<6			<0.5	
	Temperature Drift of Wavelength / Δλ/ΔT	0.03			0.03	
Electrical	Threshold Current / Ith (A)	2	1.5	2	1.4	0.6
	Operating Current / Iop (A)	11	13	20	9	12
	Operating Voltage / Vop (V)	6.5	6.2	6.2	6.2	6
	Slope Efficiency / ηes (W/A)	2.5	2.6	2.3	2.6	2.2
Fiber	Fiber Core Diameter / dcore (μm)	200	200	400	200	105
	Fiber Cladding Diameter / Dclad (μm)	220	220	440	220	125
	Fiber Coating Diameter / Dbuffer (μm)	400	400	720	400	250
	Fiber Length / L (cm)	100			100±10(Customizable)	
	Numerical Aperture	0.22			0.22	
	Connector	FC/SMA905			SMA905	

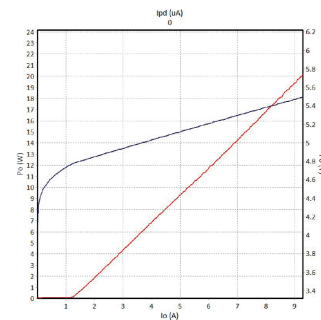
1. All the data in the above table are the typical values obtained from the tests at room temperature of 25°C, and the final data is subject to the final test report.

Other Parameters

Parameter	Operating Temperature /°C	Operating Relative Humidity /%	Storage Temperature /°C	Storage Relative Humidity /%	Lead Soldering Temperature (max/°C)
Min	10	-	-20	-	-
Max	30	75	70	90	250(10Sec.)

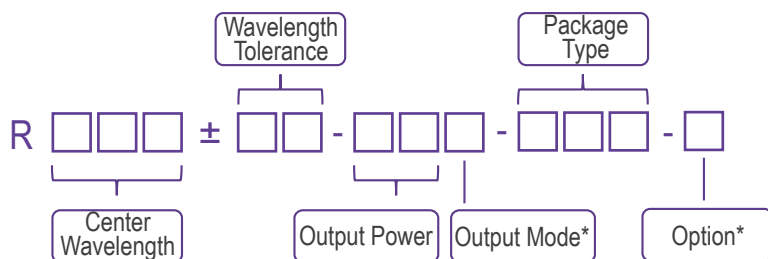
Order Information

Package	Wavelength (nm)	Output Power (W)	Part Number
R3	808	20	R808±10-20WF-R3
	915	30	R915±10-30WF-R3
	940	30	R940±10-30WF-R3
R3-G	808	20	R808±0.5-20WF-R3-G
	976	25	R976±0.5-25WF-R3-G



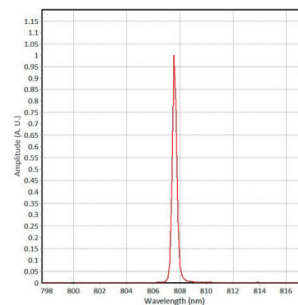
808nm P-I-V Graph

Part Numbering Schema



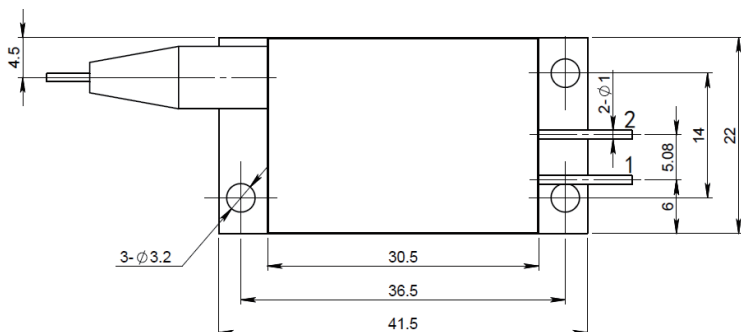
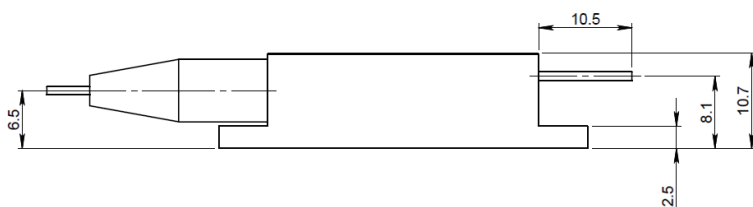
*Output Mode: F - Fiber Pigtailed

*Option: G - Narrow Linewidth



808nm Spectrum

Mechanical Drawings (in mm)



Pin	Function
1	Laser (+)
2	Laser (-)

