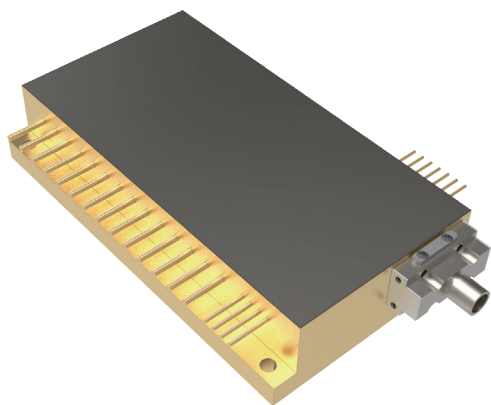




R13D-675nm High Power Diode Laser Components

R13D-675nm diode laser components are RealLight's AW series multi-function laser modules, providing single-wavelength output. These fiber detachable lasers are equipped with aiming beam, fiber detector, photodiode and thermistor.

Key Features

- ◆ Superior power stability
- ◆ Excellent beam quality
- ◆ Efficient heat dissipation
- ◆ High reliability
- ◆ Different-wavelength combinations available

Applications

Spectroscopic Detection
Biomedicine
Material Analysis
Display&Lighting
Laser Manufacturing

Technical Specifications (25°C)

Package Type		R13D
		Single-wavelength
Center Wavelength (nm)		675
Optical	CW Output Power / P_{op} (W)	15
	Wavelength Tolerance (nm)	± 10
	Spectral Width / $\Delta\lambda$ (nm)	< 4
	Temperature Drift of Wavelength / $\Delta\lambda/\Delta T$ (nm/°C)	0.3
Aiming Beam	Output Power / P_a (mW)	5
	Wavelength / λ_a (nm)	520 ± 10
	Threshold Current / I_{th} (A)	0.02
	Operating Current / I_{op} (A)	0.08
Electrical	Voltage / V_a (V)	5.5
	Threshold Current / I_{th} (A)	0.5
	Operating Current / I_{op} (A)	2.5
	Operating Voltage / V_{op} (V)	23
	Slope Efficiency / η_{es} (W/A)	7.5
	PD Parameter / I_{pd} (μA)	< 8000
Fiber	Thermistor / R_t ($k\Omega/\beta$ (25°C))	$10 \pm 1\%/3930$
	Fiber Core Diameter / D_{core} (μm)	200
	Fiber Cladding Diameter / D_{clad} (μm)	220
	Fiber Coating Diameter / D_{buffer} (μm)	400
	Numerical Aperture / NA	0.22
	Connector	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.

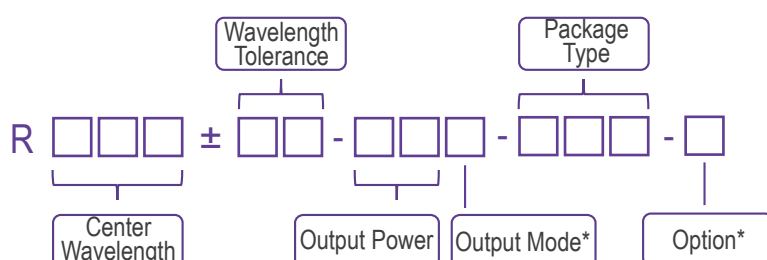
Other Parameters

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
R13D	675	15	R675±10-15WD-R13D-PFS

Part Numbering Schema

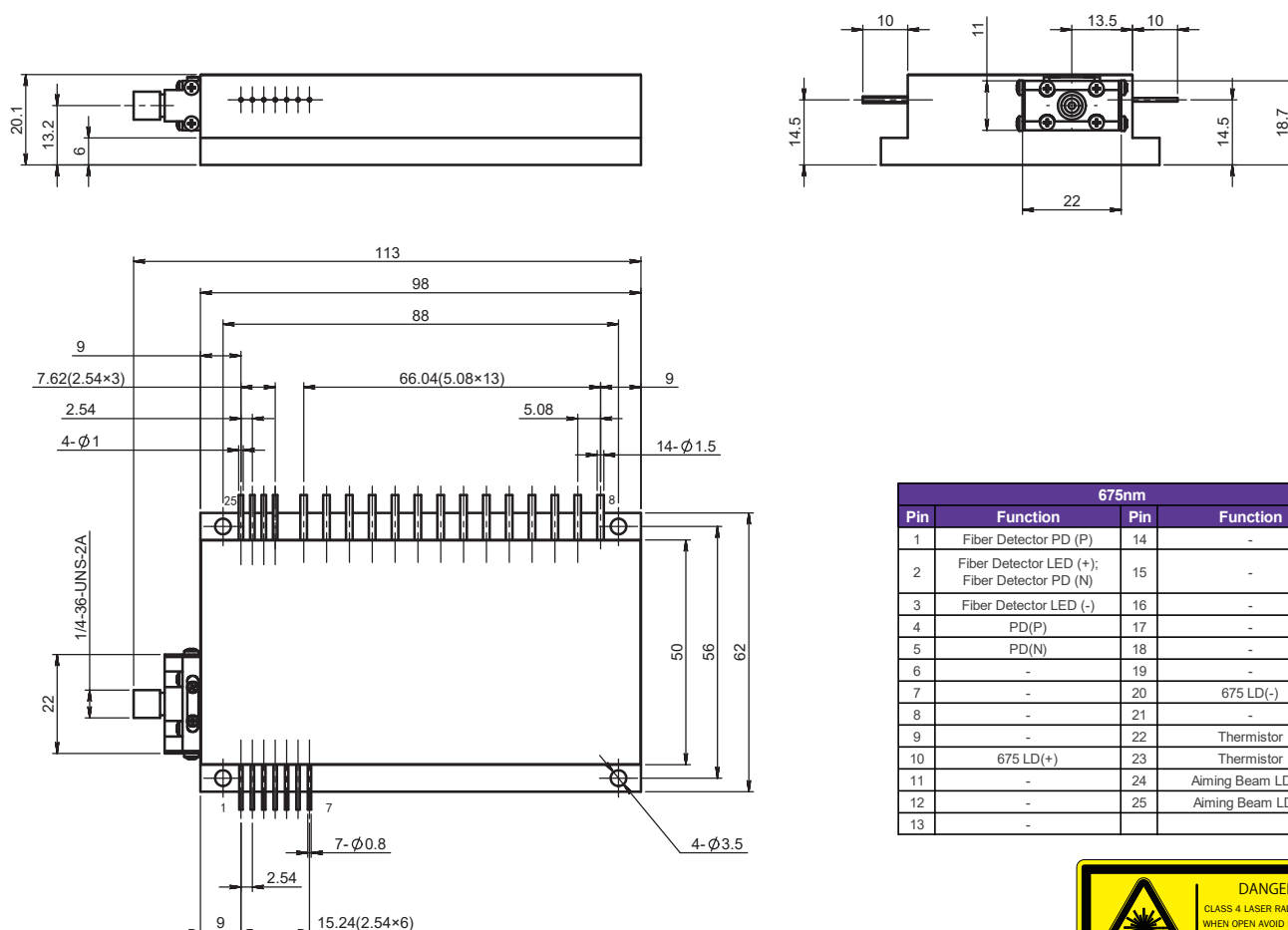


*Output Mode: D - Fiber Detachable

*Option: P - Pilot Light

FS - Fiber Detector

Mechanical Drawings (in mm)



675nm			
Pin	Function	Pin	Function
1	Fiber Detector PD (P)	14	-
2	Fiber Detector LED (+); Fiber Detector PD (N)	15	-
3	Fiber Detector LED (-)	16	-
4	PD(P)	17	-
5	PD(N)	18	-
6	-	19	-
7	-	20	675 LD(-)
8	-	21	-
9	-	22	Thermistor
10	675 LD(+)	23	Thermistor
11	-	24	Aiming Beam LD(+)
12	-	25	Aiming Beam LD(-)
13	-		

