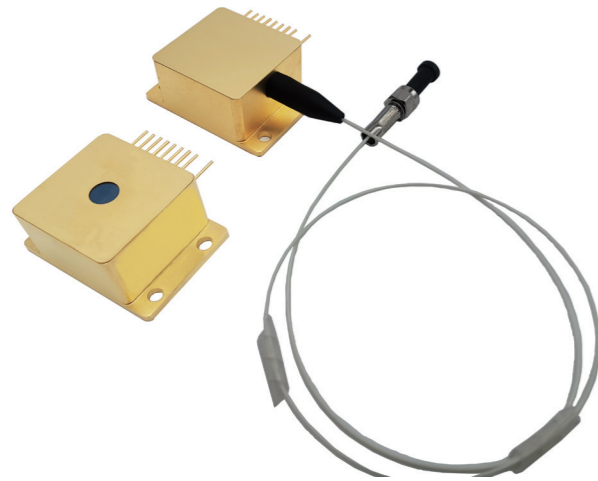


# 09HHL Diode Laser Components



## Applications

- Pumping source
- Laser Machining
- Scientific research

## Technical Specifications (25°C)

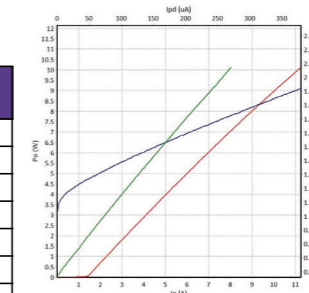
Package Type		09HHL-T (Free Space)		09HHL-T (Fiber Pigtailed)						09HHL-TG (Narrow Linewidth)	
Center Wavelength (nm)		808	808	450	638	785	808	9XX	1064	808	976
Optical	CW Output Power / Pop (W)	3	10	4	1	5	8.5	15	10	6	9
	Wavelength Tolerance (nm)	±3,±10								±0.5	
	Spectral Width / Δλ (nm)	<4								<0.3	
	Temperature Drift of Wavelength / ΔλΔT (nm/°C)	0.3								0.01	
Electrical	Threshold Current / Ith (A)	0.37	1.39	0.4	0.4	1.4	1.4	0.7	0.7	1.5	0.6
	Operating Current / Iop (A)	3.1	11	3.5	1.5	9	11	18	13.5	11.5	12
	Operating Voltage / Vop (V)	2.3	1.9	4.4	2	2	2	1.9	1.8	2	1.9
	PD Parameter / Ipd (μA)	<2000									
	Thermistor / Rt (kΩ/β (25°C))	10±5%/3450									
	TEC Max Current Imax (A)	6									
	TEC Max Voltage Vmax (V)	9.8									
Slope Efficiency / ηes (W/A)	1.0	1.0	0.9	1.0	0.8	0.9	0.9	0.8	0.8	0.8	0.8
Fiber	Fiber Core/Cladding Diameter Dcore (μm)	—		105/125, 200/220							
	Fiber Length / L (cm)	—		100±10 (customizable)							
	Numerical Aperture / NA	—		0.22							
	Connector	—		FC/PC, SMA905, bare ferrule							

## Other Parameters

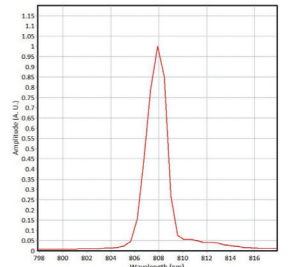
Parameter	Operating Temperature /°C	Operating Relative Humidity /%	Storage Temperature /°C	Storage Relative Humidity /%	Lead Soldering Temperature (max/°C)
Min	10	-	-20	-	-
Max	30	75	70	90	250(10Sec.)

## Order Information

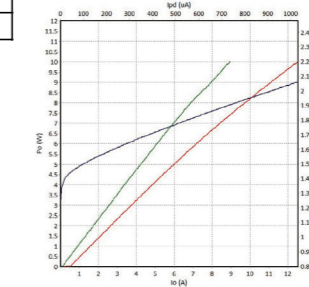
Package	Wavelength (nm)	Output Power (W)	Part Number
09HHL-T (Free Space)	808	3	R808±10-3WW-09HHL-T
	808	10	R808±10-10WW-09HHL-T
09HHL-T (Fiber Pigtailed)	450	4	R450±10-4WF-09HHL-T
	638	1	R638±10-1WF-09HHL-T
	785	5	R785±10-5WF-09HHL-T
	808	8.5	R808±10-8.5WF-09HHL-T
	9xx	15	R9xx±10-15WF-09HHL-T
09HHL-TG (Narrow Linewidth)	1064	10	R1064±10-10WF-09HHL-T
	808	6	R808±0.5-6WF-09HHL-TG
	976	9	R976±0.5-9WF-09HHL-TG



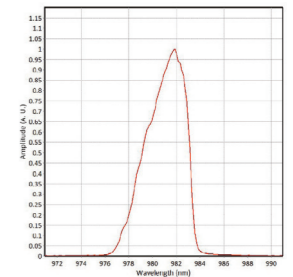
808nm P-I-V Graph



808nm Spectrum

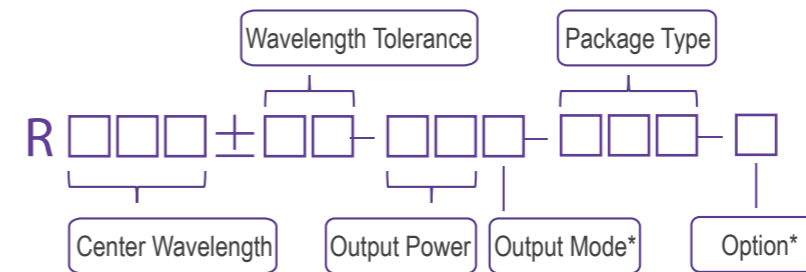


980nm P-I-V Graph



980nm Spectrum

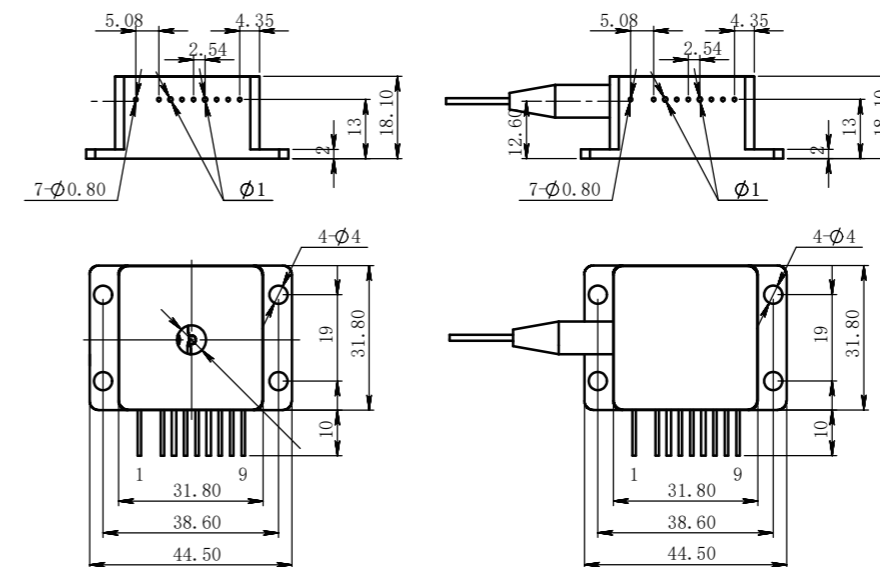
## Part Numbering Schema



\*Output Mode: F - Fiber Pigtailed W - Free Space

\*Option: T - TEC G - Narrow Linewidth

## Mechanical Drawings (in mm)



Pin	Function	Pin	Function
1	TEC(-)	6	Laser (-)
2	Case	7	PD(P)
3	Laser (+)	8	PD(N)
4	Thermistor	9	TEC (+)
5	Thermistor		

