

02HBCK Diode Laser Components

02HBCK diode laser components are RealLight's AW series laser modules, providing single-wavelength output in fiber coupled or free space configurations, featuring compact size, excellent beam quality, high output power and more.

Key Features

- ◆ Compact size
- ◆ High reliability
- ◆ Excellent beam quality
- ◆ Various wavelengths

Applications

- Pumping source
- Material processing
- Laser Therapy
- NightVision lighting

Technical Specifications (25°C)

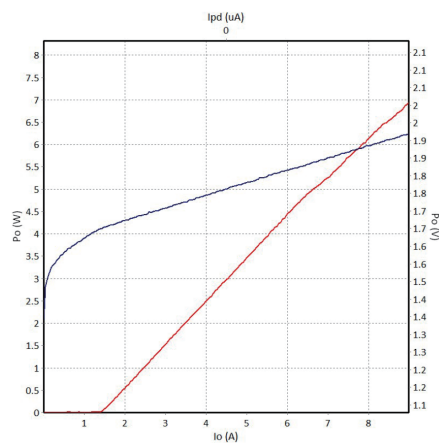
Package Type		02HBCK (Free Space)			02HBCK Fiber Pigtailed			02HBCK-G (Narrow Linewidth Fiber Pigtailed)		
Center Wavelength (nm)		808	9XX	1064	808	9XX	1064	808	976	
Optical	CW Output Power / Pop (W)	10	12	12	8	10	10	6	5	
	Wavelength Tolerance (nm)	±3, ±10			±3, ±10			±0.5		
	Spectral Width / Δλ (nm)	<4			<4			<0.5		
	Temperature Drift of Wavelength / Δλ/ΔT (nm/°C)	0.3			0.3			0.01		
	Fast Axis Divergence (°)	1-8			—			—		
	Slow Axis Divergence (°)	8-10			—			—		
	Polarization State	TE			—			—		
	Optional Beam Focusing Function	Built-in laser focus lens			—			—		
	Optional Feedback Protection Function	>30dB@1030-1070nm >30dB@1500-1600nm			>40dB@1030-1070nm			>30dB@1030-1070nm >30dB@1500-1600nm		
	Fiber Core/Cladding Diameter Dcore (μm)	—			105/125、200/220			105/125、200/220		
	Fiber Length / L (cm)	—			100±10 (customizable)					
	Numerical Aperture / NA	0.22								
Connector	—			FC/PC,SMA905, bare ferrule						
Electrical	Threshold Current / Ith (A)	1.5	0.8	1.3	1.5	1.2	1.3	1.5	0.7	
	Operating Current / Iop (A)	12	12	15	11	13	13.5	10.0	7.0	
	Operating Voltage / Vop (V)	2.2	1.9	1.9	2.2	1.9	1.9	2.2	1.9	
	Slope Efficiency / ηes (W/A)	0.8	0.9	0.8	0.8	0.9	0.8	0.8	0.7	

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.)

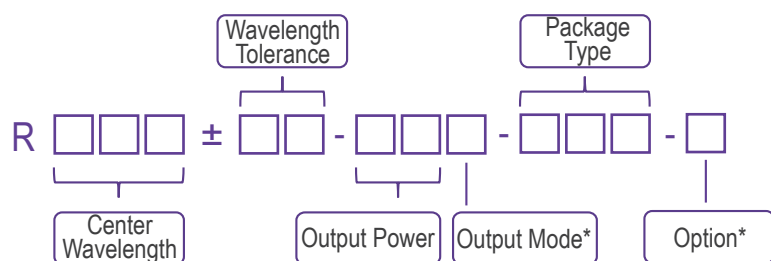
Order Information

Package	Wavelength (nm)	Output Power (W)	Part Number
02HBCK Free Space	808	10	R808±3-10WW-02HBCK
	9XX	12	R9XX±10-12WW-02HBCK
	1064	12	R1064±10-12WW-02HBCK
02HBCK Fiber Pigtailed	808	8	R808±3-8WF-02HBCK
	9XX	10	R9XX±10-10WF-02HBCK
	1064	10	R1064±10-10WF-02HBCK
02HBCK-G (Narrow Linewidth Fiber Pigtailed)	808	6	R808±0.5-6WF-02HBCK-G
	976	5	R976±0.5-5WF-02HBCK-G



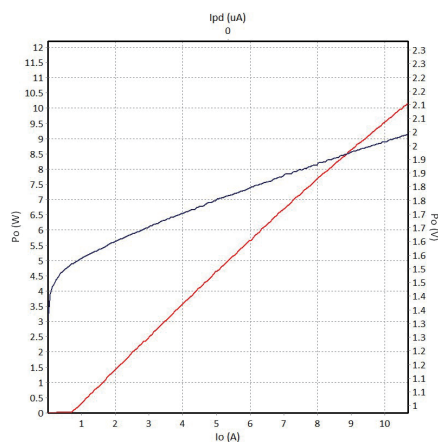
808nm P-I-V Graph

Part Numbering Schema



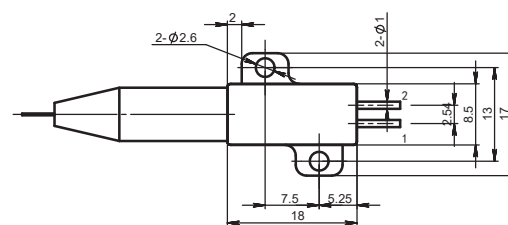
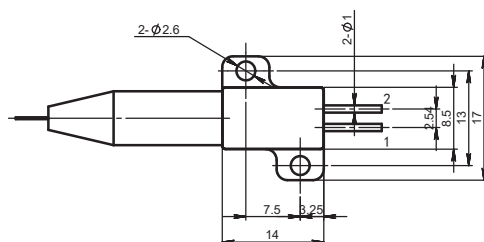
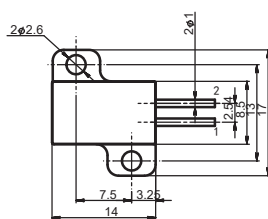
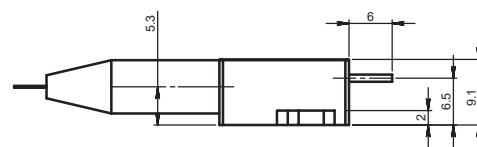
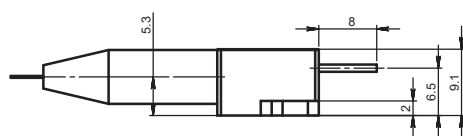
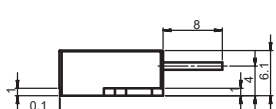
*Output Mode: W - Free Space F - Fiber Pigtailed

*Option: G - Narrow Linewidth



940nm P-I-V Graph

Mechanical Drawings (in mm)



Free Space

Fiber Pigtailed

Narrow Linewidth Fiber Pigtailed

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

