



Electro Optical Components, Inc.

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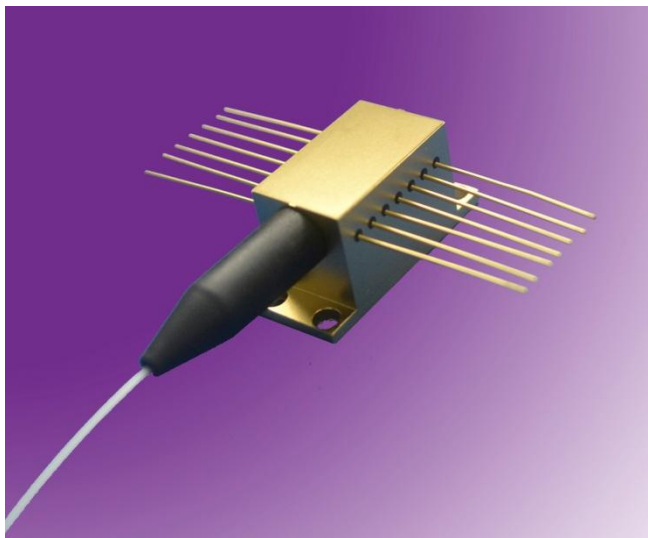
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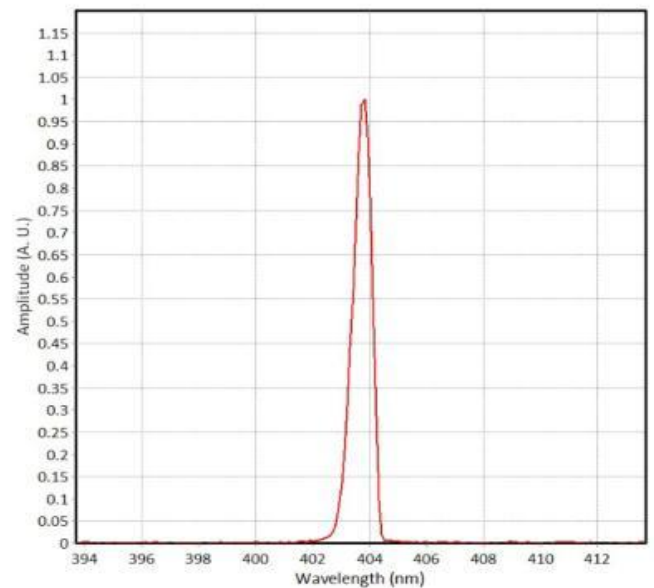
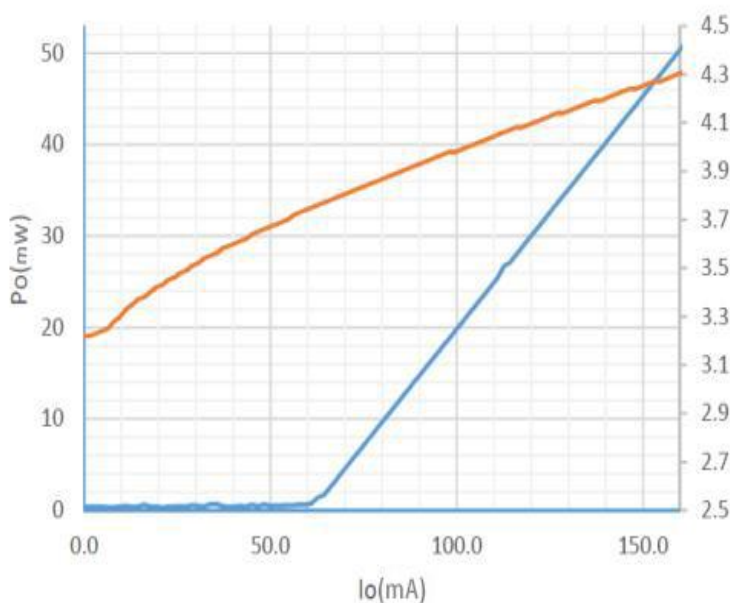
405nm 50mW Laser Diode Module

R405±5-50mWF-14BTF-T



Feature
Output power: 50mW
Wavelength: 405±5nm
Fiber core: 105 μm, 0.22NA
Application
Biological analysis
Fluorescence detection

405nm 50mW Characteristics (20°C)





Typical Device Performance(25°C)

Parameter		Symbol	Typical Value	Unit
			R405±5-50mWF-14BTF-T	
Optical	CW Output Power	Pop	50	mW
	Center Wavelength	λ_c	405±5	nm
	Spectral Width	$\Delta\lambda$	≤3	nm
	Temperature drift of wavelength	$\Delta\lambda / \Delta T$	0.3	nm/°C
Electrical	Threshold Current	I_{th}	65	mA
	Operating Current	I_{op}	160	mA
	Operating Voltage	V_{op}	4.3	V
	Slope Efficiency	η_{es}	0.52	W/A
	PD Parameter	I_{pd}	<2000	μA
	Thermistor	R_t	10±5%/3450	kΩ/β(25°C)
	TEC max Current	I_{max}	2.2	A
	TEC max Voltage	V_{max}	8.7	V
Fiber	Fiber Core Diameter	d_{core}	105	μm
	Fiber Clad Diameter	d_{clad}	125	μm
	Fiber Buffer Diameter	d_{buffer}	250	μm
	Numerical Aperture	NA	0.22	-
	Connector	-	FC/PC,ST,SMA905	-

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.)

Package Dimensions (mm)

Pin	Function	Pin	Function
1	TEC(+)	8	--
2	Thermistor	9	--
3	PD(P)	10	Laser(+)
4	PD(N)	11	Laser(-)
5	Thermistor	12	--
6	--	13	Case
7	--	14	TEC(-)

