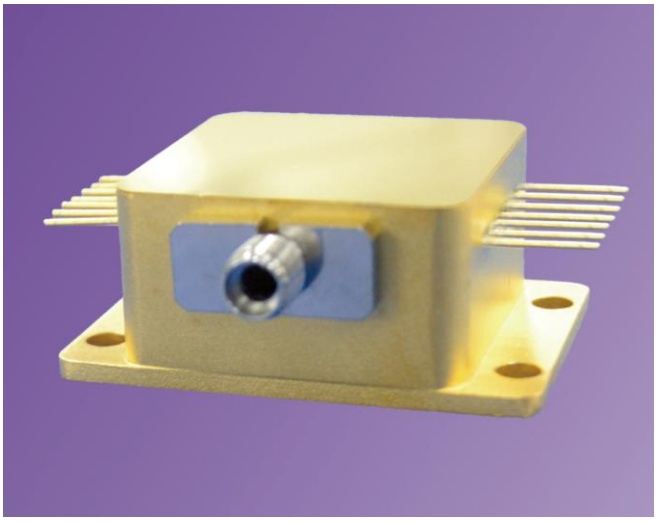
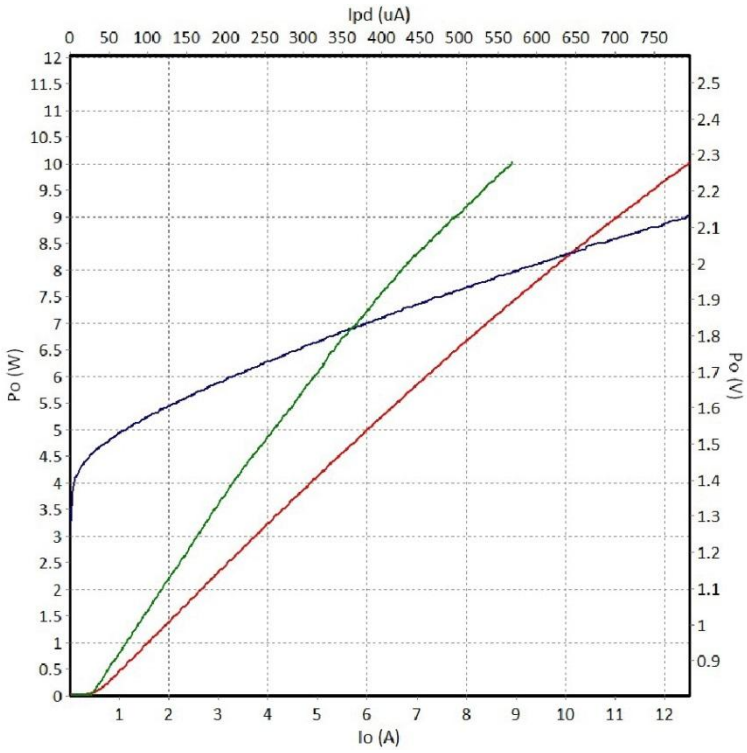
980nm 10W Laser Diode Module

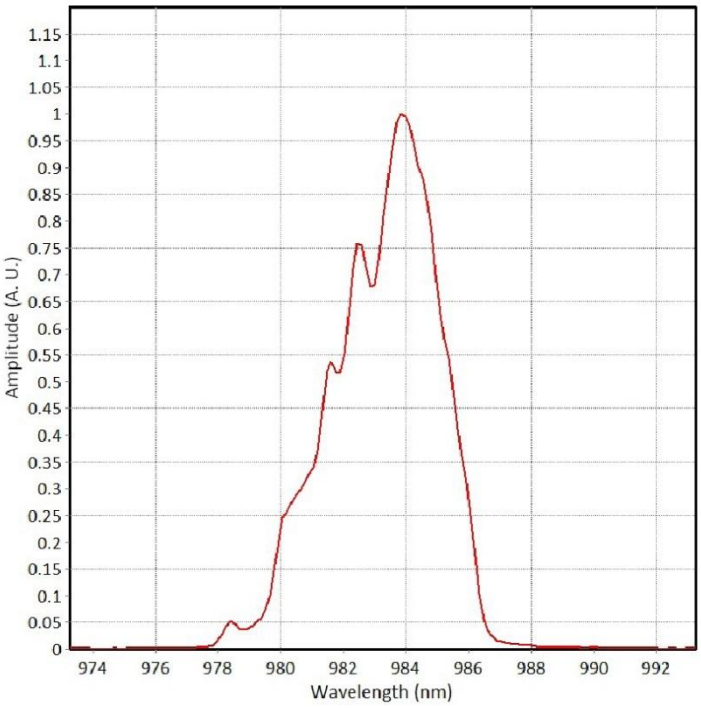
R980±10–10WD–14HHL–PTFS



Feature
Output power: 10W
Wavelength: 980±10nm
Fiber core: 200 μm, 0.22 NA
Aiming beam: 650nm
Application
Medical use
Material processing

980nm 10W Characteristics (25˚C)





Typical Device Performance(25˚C)

Parameter		Symbol	Typical Value	Unit
			R980±10–10WD–14HHL–PTFS	
Optical	CW Output Power	P_{op}	10	W
	Center Wavelength	λ_c	980±10	nm
	Spectral Width	$\Delta\lambda$	＜6	nm
	Temperature drift of wavelength	$\Delta\lambda/\Delta T$	0.3	nm/˚C
Aiming Beam	Output Power	P_a	2	mW
	Wavelength	λ_a	650±10	nm
	Voltage	V_a	2.2, 5.0	V
Electrical	Threshold Current	I_{th}	0.56	A
	Operating Current	I_{op}	12.39	A
	Operating Voltage	V_{op}	2.12	V
	Slope Efficiency	η_{es}	0.88	W/A
	PD Current	I_{PD}	＜3000	μA
	Thermistor	R_t	10±5%/3450	kΩ/β(25˚C)
	TEC Max Current	I_{tmax}	6.0	A
	TEC Max Voltage	V_{tmax}	9.8	V
Fiber	Fiber Core Diameter	d_{core}	200	μm
	Connector	-	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	80	70	250(10Sec.)

Package Dimensions (mm)

Pin	Function	Pin	Function
1	Case	8	TEC(-)
2	Laser(+)	9	FCD PD(P)
3	Thermistor	10	FCD LED(-)
4	Thermistor	11	FCD LED(+);FCD PD(N)
5	Laser(-)	12	Aiming Beam LD(+);[DC 5V]
6	PD(P)	13	Aiming Beam LD(-);[GND]
7	PD(N)	14	TEC(+)