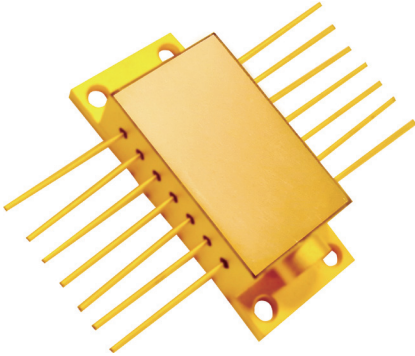


14SBTF Free Space Diode Laser Components



Applications

Medical use
Spectrum analysis
Scientific research

Technical Specifications (25°C)

Package Type		14SBTF (Free Space)							
Center Wavelength (nm)		532*	638	785		808	830	976	1064
Optical	CW Output Power / Pop (mW)	100	600	350	500	600	600	800	800
	Wavelength Tolerance (nm)	±0.5							
	Spectral Width / $\Delta\lambda$ (nm)	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.3	<0.1
	Temperature Drift of Wavelength / $\Delta N\Delta T$ (nm/°C)	0.01							
	Temperature Drift of Current / $\Delta N\Delta I_{op}$ (nm/A)	0.05							
Electrical	Threshold Current / I_{th} (A)	0.6	0.18	0.4	0.4	0.3	0.4	0.2	0.2
	Operating Current / I_{op} (A)	1	1.2	0.9	1.1	1	1.2	1.2	1.5
	Operating Voltage / V_{op} (V)	2	2.2	2	2	2	1.8	1.9	1.8
	Slope Efficiency / η_{es} (W/A)	0.3	0.6	0.7	0.7	0.9	0.8	0.8	0.6
	PD Parameter / I_{pd} (μ A)	-	< 2000						
	Thermistor / R_t ($k\Omega/\beta$ (25°C))	10±5%/3450							
	TEC Max Current I_{max} (A)	2.5							
	TEC Max Voltage V_{max} (V)	6.3							

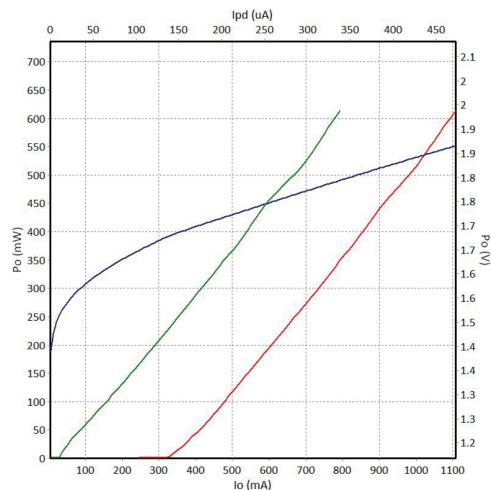
*532nm is diode pumped solid-state laser.

Other Parameters

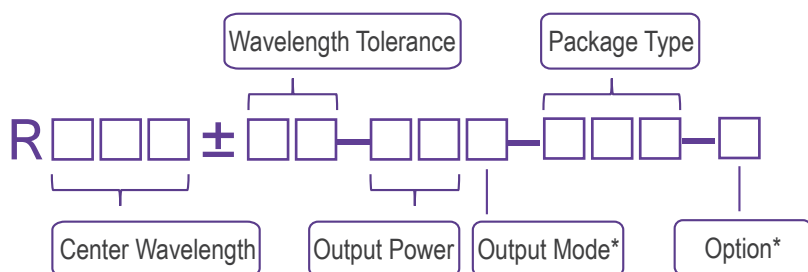
Parameter	Operating Temperature /°C	Operating Relative Humidity /%	Storage Temperature /°C	Storage Relative Humidity /%	Lead Soldering Temperature (max/°C)
Min	10	-	-20	-	-
Max	30	75	70	90	250(10Sec.)

Order Information

Package	Wavelength (nm)	Output Power (mW)	Part Number
14SBTF	532	100	R532±0.5-100mWW-14SBTF-TG
	638	600	R638±0.5-600mWW-14SBTF-TG
	785	350	R785±0.5-350mWW-14SBTF-TG
		500	R785±0.5-500mWW-14SBTF-TG
	808	600	R808±0.5-600mWW-14SBTF-TG
	830	600	R830±0.5-600mWW-14SBTF-TG
	976	800	R976±0.5-800mWW-14SBTF-TG
1064	800	R1064±0.5-800mWW-14SBTF-TG	



Part Numbering Schema

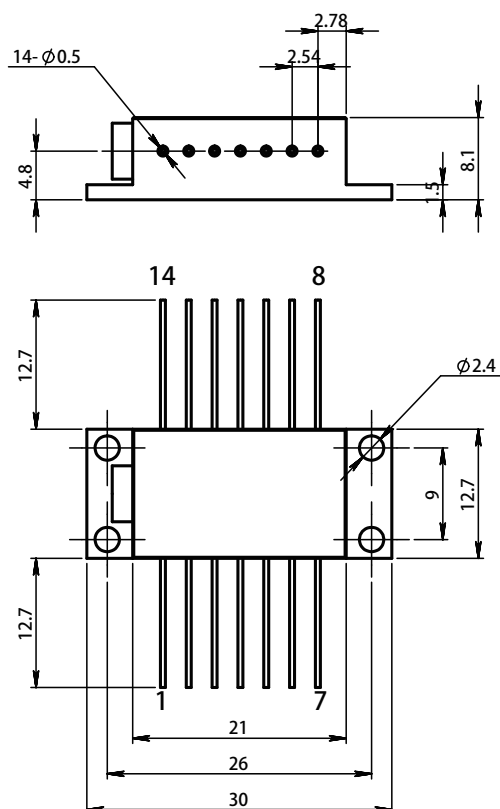


*Output Mode: W - Free Space

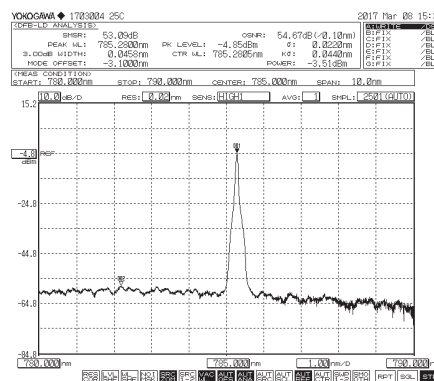
*Option: G - Narrow Linewidth

T - TEC

Mechanical Drawings (in mm)



785nm P-I-V Graph



785nm Spectrum (SMSR>40dB)

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 (-)

