

BW10-1060-T-PxFA-yy



BANDWIDTH10, LTD.

Description:

Bandwidth10's, BW10-1060 pigtailed TOSA, is part of a family of wavelength tunable lasers based on the innovative High Contrast Grating (HCG). It is a single mode tunable 1060 nm VCSEL in a 7 pin TOSA package with permanently attached fiber including a TEC and optical isolator.

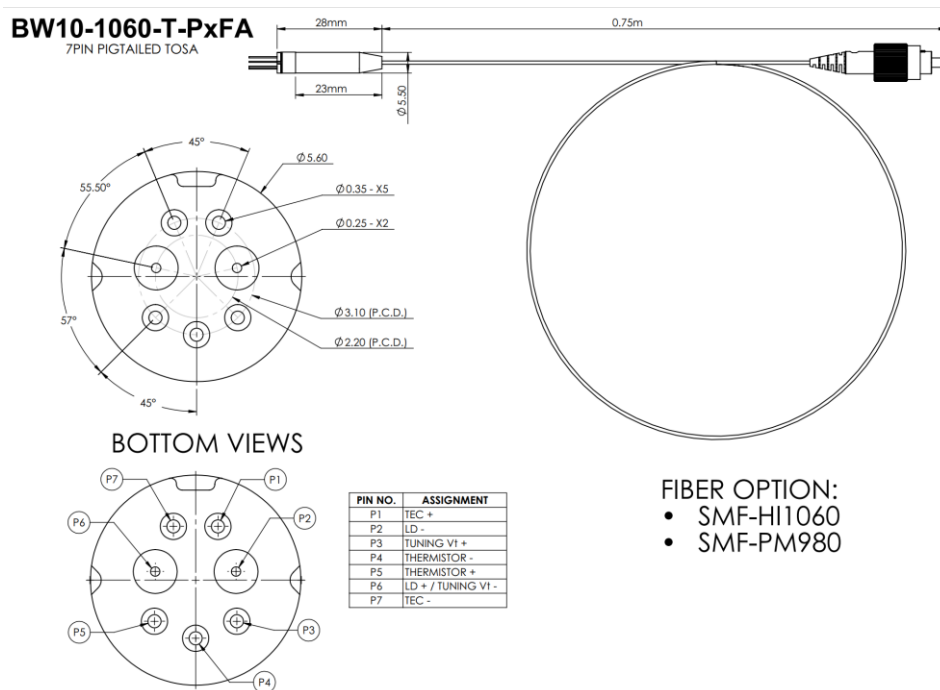
Applications:

- Optical Coherence Tomography (OCT)
- Swept source
- Medical Imaging
- Optical sensing
- Tunable Diode Laser Absorption Spectroscopy (TDLAS)

Features:

- TO-56 7-Pin Small Form Footprint
- Permanently attached 0.75m \pm 0.1m 900 μ m fiber pigtail with FC/APC Connector
- Integrated TEC (Temperature Stabilization)
- Integrated optical isolator
- Minimum CW optical power of 0.05 mW (@25°C TEC Temperature over tuning range)
- Single Mode, single lobe VCSEL
- Wavelength Tuning Range: up to 50+ nm
- Fast Wavelength Tuning +200 kHz

Dimensional Drawing and Pin Assignment



CAUTION: Device is sensitive to electrostatic discharge.

Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit
Storage Temperature	T_{stg}	-20 to +100	°C
Operating Case Temperature	T_c	-5 to +55	°C
Forward Current of VCSEL	I_{LD}	6 mA	mA
Reverse Current of VCSEL	I_{LDRS}	0	mA
Reverse Voltage of VCSEL	V_{LD}	0	V
Soldering Temperature	T_{sld}	350 (10 sec.)	°C

Operating Conditions

Parameter	Symbol	Values			Unit
		Min	Typical	Max	
Optical Output Power At 25°C TEC temp. over 30 nm tuning range	P_{O30}	0.1			mW
Optical Output Power At 25°C TEC temp. over 50 nm tuning range	P_{O50}	0.05			mW
Operating Current	I_{LD}	0	5	6	mA
Operating TEC Temperature	T_{op}	5	25	30	°C
TEC maximum Current	I_{TEC}		0.5	0.6	A
TEC voltage	V_{TEC}		0.35	1.5	V
Center wavelength Please specify desired center wavelength in the purchase order	λ	1030		1070	nm
Guaranteed Tuning Range Minimum tuning range is specified in the part number i.e. 30 nm: BW10-1060-T-PHxx-30 or 50 nm: BW10-1060-T-PHxx-50	$\Delta\lambda$	30			nm
		50			
Polarization Extinction Ratio for PM fiber version (BW10-1060-T-P9FA-yy)	PER	18			dB
Threshold Current over tuning range	I_{th}		1	4.5	mA
Laser Drive Voltage	V_{cc}	0	3	6	V
Differential Resistance	R_d		500	700	Ω

Mechanical Tuning Response	f_{\max}	100	200		kHz
Side-mode suppression ratio	SMSR	20			dB
Tuning Voltage	V_{tune}	0	See test data		V
Tuning Current	I_{tune}	0		0.1	mA

Model Number

BW10	-	1060	-	T	-	Px	FA	-	yy
				T		Fiber type: PH: 0.75m 900 μ m Hi1060 fiber P9: 0.75m, 900 μ m PM980 polarization maintaining PANDA fiber, narrow key connector and output signal aligned to the slow axis.	FC/APC connector		30: 30 nm tuning range 50: 50 nm tuning range

e.g. BW10-1060-T-PHFA-30

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