

C-Band High Power DFB Laser Source (14-Pin Butterfly Package)

FEATURES

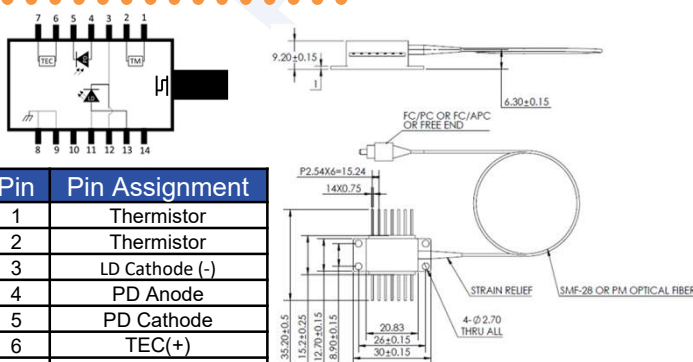
- ITU Grid Wavelengths
- Pigtail output power up to 100mW
- Linewidth <1MHz
- 14-Pin Butterfly Package with integrated isolator

The DS-DF5 C-Band High Power DFB Series is an InGaAsP based and cooled distributed feedback laser optimized for data comm application. Denselight's advanced technology enables mode-hop free tunability, high power, excellent SMSR, and high accuracy of the lasing wavelength.

ELECTRICAL AND OPTICAL CHARACTERISTICS

Parameter	Symbol	Conditions	MIN	TYP	MAX	Unit
Wavelength Range (ITU Grid)	λ_p	T_{CHIP}, I_{OP}	1526	-	1563	nm
Chip Temperature	T_{CHIP}	-	18	-	35	°C
Pigtail Optical Power	P_O		(see below options)			mW
DS-DF5040- Version		T_{CHIP}, I_{OP}	40	-	-	mW
DS-DF5063- Version		T_{CHIP}, I_{OP}	63	-	-	mW
DS-DF5080- Version		T_{CHIP}, I_{OP}	80	-	-	mW
DS-DF5100- Version		T_{CHIP}, I_{OP}	100	-	-	mW
Operating Current	I_{OP}		(see below options)			mA
DS-DF5040- Version		T_{CHIP}	-	-	350	mA
DS-DF5063- Version		T_{CHIP}	-	-	500	mA
DS-DF5080- Version		T_{CHIP}	-	-	600	mA
DS-DF5100- Version		T_{CHIP}	-	-	650	mA
Threshold Current	I_{TH}		-	25	-	mA
Operating Voltage	V_{OP}		-	-	3.0	V
Side Mode Suppression Ratio	SMSR		30	45	-	dB
Polarization Extinction Ratio	PER		17	20	-	dB
Linewidth	LW		-	0.5	1.0	MHz
Relative Intensity Noise	RIN		-	-	-155	dB/Hz
Thermistor Resistance		$T_{CHIP}=25^{\circ}\text{C}$	9500	10000	10500	Ω
TEC Voltage			-	-	3.5	V
TEC Current			-	-	1.9	A
Operating Case Temperature			-20	-	65	°C

PACKAGE



Pin	Pin Assignment
1	Thermistor
2	Thermistor
3	LD Cathode (-)
4	PD Anode
5	PD Cathode
6	TEC(+)
7	TEC(-)
8	Case GND
9	Case GND
10	NC
11	LD Anode (+)
12	LD Cathode (-)
13	LD Anode(+)
14	NC

Part	Description
Package type	BTF
Fiber:	PMF; Corning PM15-U25D
Jacket	Bare Fiber
Fiber pigtail length	1m
Connector	FC/APC
Dimensions	See figure

FAMILY OPTIONS (DS-DF5-SERIES)

DS-DF5 AAA B A10-CC-DDDD.DD

Power Options:

040: >40mW
060: >60mW
080: >80mW
100: >100mW

Wavelength Options:

1550.12
1545.94
1542.32
(Other ITU Grid Wavelengths available upon request)

Bias-T Options

1: no Bias-T
2: Low Impedance
(Other options available upon request)

Pigtail Options:

FP: PMF, bare
FQ: PMF, 900μm Buffer