

1310 CWDFB Product

High Power DFB Laser Source

(100mW CW DFB Chip)

The DS-DF31001D-TM is an InGaAsP-based and uncooled 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 lasing wavelength.

FEATURES

- Uncooled operation from -5 to 75°C
- Min output power of 100mW at 75°C, 500mA
- Lasing wavelength of 1311nm
- Typical SMSR \geq 40dB
- Designed for CW transmission

APPLICATIONS

- * CW laser
- * Ethernet/Datacenter Interconnect
- * Si Ph 400G/800G optical module
- * Si Ph based light engine
- * CPO Application

ELECTRICAL AND OPTICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Min	Typical	Max	Unit
Optical Output Power	P_o	T_{chip}, I_{op}	100	-	-	mW
Center wavelength ¹	λ_c	T_{chip}, I_{op}	1304.5	1311	1317.5	nm
Threshold current	I_{th}	25°C	-	12	-	mA
		75°C	-	30	-	mA
Operating current	I_{op}	T_{chip}	-	400	500	mA
Forward voltage	V_f	V_{op}	-	-	1.8	V
Slope efficiency	η_s	T_{chip}, I_{op}	0.2	-	-	W/A
Side Mode Suppression Ratio	SMSR	I_{op} (full range)	40	-	-	dB
Wavelength change with temperature	$\Delta\lambda/\Delta T$	I_{op} (full range)	0.09	0.1	0.11	nm/°C
Far Field Divergence Angle Horizontal	θ_H	CW, FWHM	-	23	-	degree
Far Field Divergence Angle Vertical	θ_V	CW, FWHM	-	23	-	degree

DIE DIMENSION

Die dimension	Typical
Length	850±20 μ m
Width	250±20 μ m
Thickness	100±10 μ m

