

## DFB-1310HP25-C

## 1.31μm 2.5G DFB Laser Chip

## Features

- 2.5G operation - Operation temperature: -40°C – 85°C - AlInGaAs MQW design - Proven reliability

## Specification

Item	Symbol	Minimum	Typical	Maximum	Unit	Conditions
Centre wavelength	$\lambda_c$		1310		nm	25°C, 50mA
Threshold current	$I_{th25}$		10	12	mA	25°C
	$I_{th85}$		24	30	mA	85°C
$T_{zero}$	$T_0$		70		K	25°C -85°C
Operation Current	$I_{op25}$		22	30	mA	5mW, 25°C
	$I_{op85}$		35	45	mA	5mW, 85°C
Operation Voltage	$V_{op25}$		1.35	1.6	V	25°C
	$V_{op85}$		1.50	1.6	V	85°C
Slope Efficiency	$dL/dI_{25}$	0.30	0.38		mW/mA	$I_{th}+5mA, 25^\circ C$
	$dL/dI_{85}$	0.20	0.28		mW/mA	$I_{th}+5mA, 85^\circ C$
Resistance	R		10	12	ohm	25°C, 50mA
RMS Spectral Width	$\lambda_{RMS}$			0.1	nm	25°C, 50mA
$d\lambda/dt$	$d\lambda/dt$		0.08		nm/C	25°C -85°C
Modulation bandwidth		5	6		GHz	25C, $I_{th}+25mA$
SMSR		35	40		dB	$I_{op}$
Horizontal divergence angle	$\theta_{  }$		24		deg	$I_{op}$ , FWHM
Vertical divergence angle	$\theta_{\perp}$		32			$I_{op}$ , FWHM
Length	L	245	250	255	μm	
Width	W	195	200	205	μm	
thickness	T	95	100	105	μm	

## Absolute Maximum ratings

Item	Symbol	Min	Max	Unit
Operation temperature	$T_{op}$	-40	85	°C
Laser Forward Current	$I_F$		150	mA
Laser Reverse Voltage	$V_R$		2	V
Storage temperature	$T_S$	-50	100	°C
Solder temperature	$T_s$		320	°C

