

LDI-1310-DFB-10G-20/60

1310 nm, DFB, 20 mW CW, 60 mW pulse, 10 Gbps

DESCRIPTION

The module is equipped with an SM fiber and operates in the large temperature range both in CW giving optical power up to 20 mW and pulse mode giving optical power up to 60 mW. Small size and weight allow for installing it on a PCB without additional mounting.

Applications: optical sources, fiber optic communication systems with data rate up to 10 Gbps.

ABSOLUTE MAXIMUM RATINGS

Parameter	Value	Unit
LD forward current, I_{fl}	120	mA
LD pulse forward current, I_{pfl}	350	mA
LD reverse voltage, V_{rl}	2	V
PD reverse voltage, V_{rd}	30	V
Operating temperature, T_c	-40 ÷ +80	°C
Storage temperature, T_{stg}	-40 ÷ +80	°C

ELECTRICAL-OPTICAL CHARACTERISTICS (SINGLE MODE, T = 25 °C)

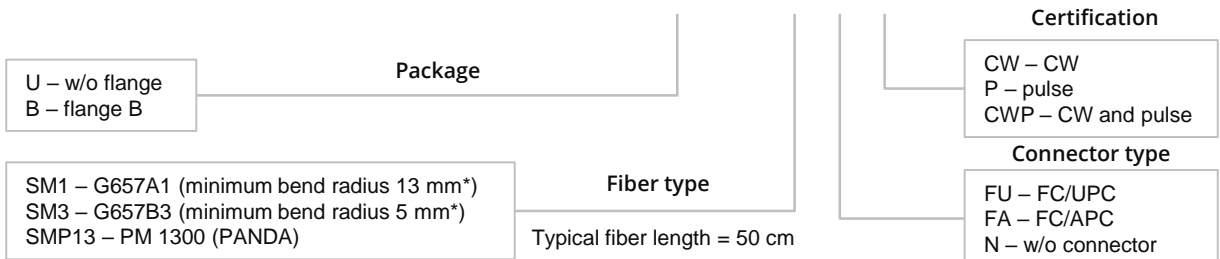
Parameter	Min	Typ	Max	Unit	Test conditions	
Wavelength	λ	1305	1310	1317	nm	CW
Threshold current	I_{th}		12	15	mA	CW
Operating current	I_{op}		15	20	mA	CW, P = 2 mW
			45	55		CW, P = 10 mW
			90	110		CW, P = 20 mW
			250	300		Pulse*, P = 60 mW
Spectral width	$\Delta\lambda$		0.09		nm	CW, - 20 dB
Operating voltage	V_{op}		1.2	1.7	V	CW, P = 20 mW
Slope efficiency	S_e	0.1	0.17		mW/mA	CW, P = 20 mW
Resonance frequency	f_c		12		GHz	
Rise and fall times	t_r, t_f			0.05	ns	20% - 80%
Monitoring output current (PD)	I_m	0.1	0.55	1	mA	CW, $V_{rd} = 5$ V, P = 20 mW
Capacitance (PD)	C_t		10	20	pF	$V_{rd} = 5$ V, f = 1 MHz
Tracking error**	E_r		0.4	0.6	dB	CW, P = 5 mW, T = -20 ÷ +60 °C

*Pulse duration 1 μ s, duty cycle 0.01

**Tracking error $E_r = \max[10 \log(P/P_{25^\circ C})]$, $I_m = \text{const}$

ORDERING INFORMATION

LDI-1310-DFB-10G-20/60-X-12-X-X-X



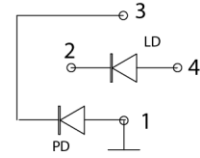
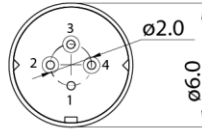
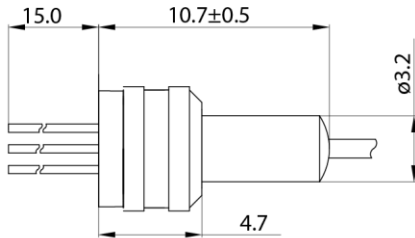
*Attenuation 0.1 dB/loop at 1550 nm

Our products are certified by Belarusian Chamber of Commerce. All the components used in production are ISO 9001:2008 certified and comply with RoHS directive. Characteristics, data, materials and structures specified in this datasheet are subject to change without notice.

This document was updated on 31.08.2017

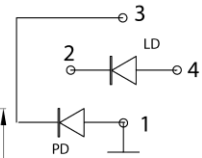
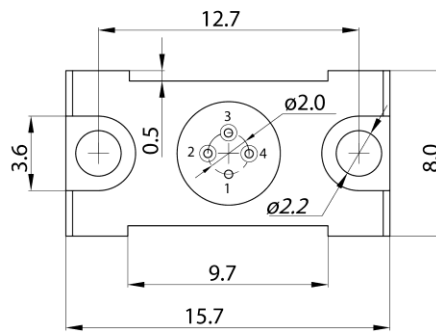
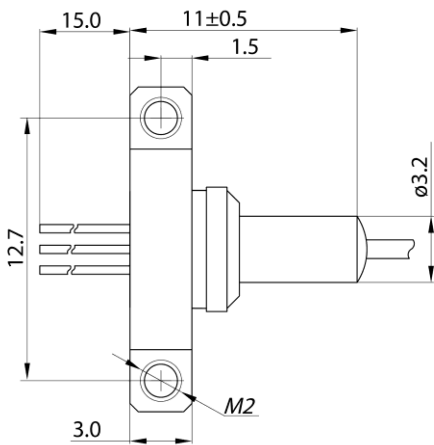
LDI-1310-DFB-10G-20/60

U



- 1. Case, PD Anode
- 2. LD Cathode
- 3. PD Cathode
- 4. LD Anode

B



- 1. Case, PD Anode
- 2. LD Cathode
- 3. PD Cathode
- 4. LD Anode

LDI-1310-DFB-10G-20/60

