



TLC-P85A846-25C

High Speed 25Gb/s LC Connectorized 850nm VCSEL with FPC (Commercial Temperature)

Description

The Lasermate TLC-P85A846-25C is an 850nm wavelength, Vertical Cavity Surface Emitting Laser (VCSEL) LC-TOSA designed for use in 25Gbps data rate operation.



Features

- LC-type optical sub-module with flexible circuit attached
- Support up to 25.78125Gbps data rate operation
- Isolated pinout between LD and monitor PD
- Operating temperature 0 to 70 °C

Applications

- 25Gbps data rate operation

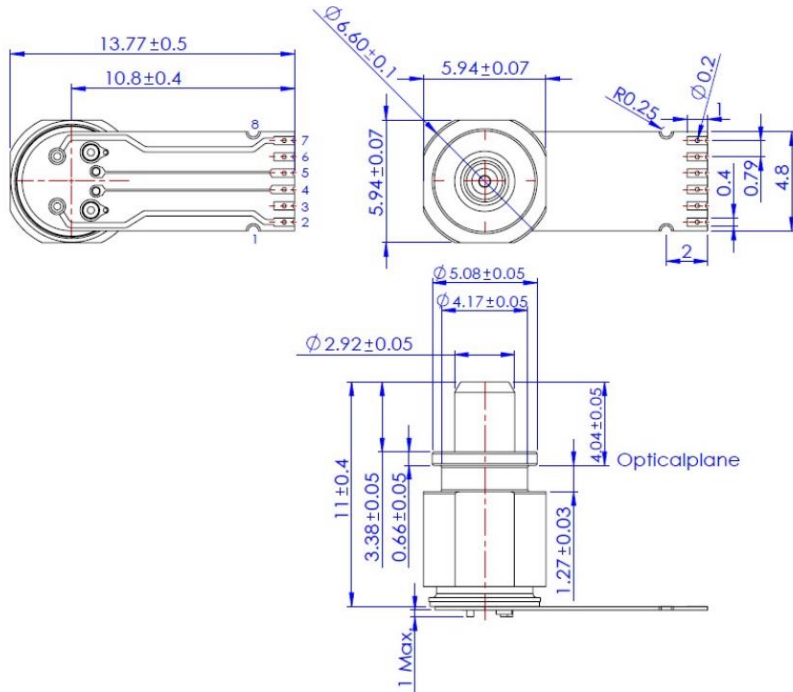
Specifications

Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	85	°C	
Operating Temperature	0	70	°C	
Lead Solder Temperature		260	°C	10 seconds
Continuous Forward Current		12	mA	
Continuous Reverse Voltage		5	V	

Electro-Optical Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold Current	I_{th}			1.2	mA	$T_A=25\text{ }^\circ\text{C}$
Slope Efficiency	η		0.14		mW/mA	$I_F=6.5\text{ mA}$
Wavelength	λ_P	840	850	860	nm	$I_F=6.5\text{ mA}$
Forward Voltage	V_F		2.2		V	$I_F=6.5\text{ mA}$
Series Resistance	R_S		100		Ohm	$I_F=6.5\text{ mA}, T_A=25\text{ }^\circ\text{C}$
Relative Intensity Noise	RIN			-128	dB/Hz	$I_F=6.5\text{ mA}, f=1\text{GHz}$
Spectral width (RMS)	$\Delta\lambda$			0.6	nm	$I_F=6.5\text{ mA}, T_A=0\sim 70\text{ }^\circ\text{C}$
Monitor Current	I_M	100		1000	uA	$V_R=5\text{ V}, I_F=6.5\text{ mA}$
PD Dark Current	I_d			50	nA	$V_R=5\text{ V}, T_A=25\text{ }^\circ\text{C}$
PD Capacitance	C_M		12		pF	$V_R=3\text{ V}, f=1\text{MHz}$

Thermal Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
η Temperature Coefficient	$\Delta\eta/\Delta T$		-0.5		%/°C	$T_A=0\sim 70\text{ }^\circ\text{C}, I_F=6.5\text{ mA}$
λ_P Temperature Coefficient	$\Delta\lambda_P/\Delta T$		0.06		nm/°C	$T_A=0\sim 70\text{ }^\circ\text{C}, I_F=6.5\text{ mA}$
Tracking Error	TE	-1.5		1.5	dB	$T_A=0\sim 70\text{ }^\circ\text{C}$

Outline Dimensions (unit: mm)



Pin Configuration

Number	Function
1	GND
2	MPD Cathode
3	Case/GND
4	VCSEL Cathode
5	VCSEL Anode
6	Case/GND
7	MPD Anode
8	GND

Note: Specifications are subject to change without notice.