RLC-P85P8256-3V

25Gbps LC Connectorized GaAs PIN Photodiode with Pre-Amplifier and Flexible Circuit

Data Sheet

Overview

The Lasermate RLC-P85P8256-3V is a high-performance 25Gbps optical receiver module integrating a GaAs PIN photodiode, transimpedance amplifier (TIA), and a flexible circuit in an LC connectorized package. Optimized for the 770nm–860nm spectral range, this compact module is designed for short-wavelength, high-speed fiber optic communication systems including SFP28 transceivers and other 25Gbps applications.

Features

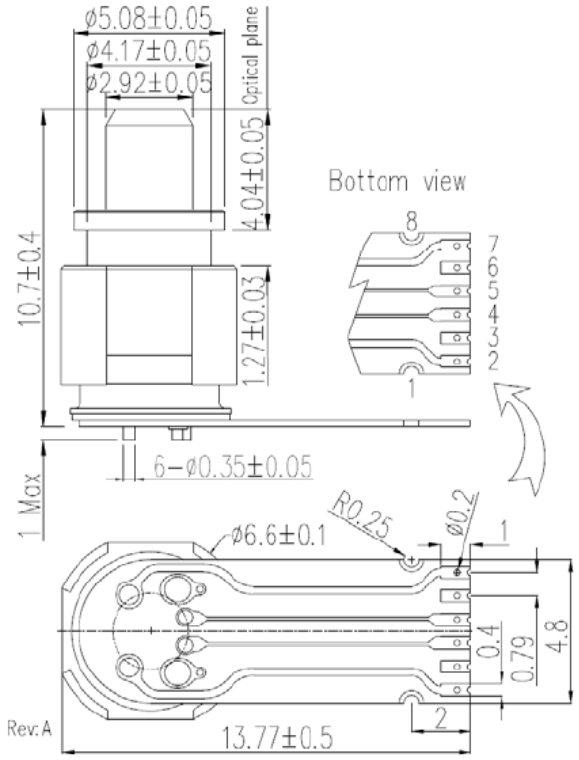
- LC-type optical submodule with attached flexible circuit
- Designed for Small Form Pluggable (SFP) transceivers
- Supports data rates up to 25.78125 Gbps
- Photocurrent monitoring capability
- Single +3.3 V power supply

Specifications

Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	100	°C	
Operating Temperature	-20	85	°C	
Lead Solder Temperature		260	°C	10 seconds
Flex Attach Temperature		370	°C	10 seconds

Electro-Optical Characteristics (T_A = 25°)							
Parameters		Symbol	Min.	Typ.	Max.	Unit	Conditions
Power Supply		V_{CC}	3.0	3.3	3.5	V	
Supply Current		I_{CC}		31	45	mA	no loads
Differential Responsivity		R_d		0.45		mV/uW	R_{load}=100ohm, P=-10dBm, λ=850nm
TIA RSSI	Slope			1		mA/mA	
	Offset			6	10	nA	
	Accuracy			1	2	%	
Small-Signal Bandwidth		BW		17		GHz	In TIA linear gain region
Low-Frequency Cut off		LF		30		kHz	
Saturation Power		P_{Sat}	2			dBm	λ=850nm @25.78125Gbps, PRBS31, ER=4.7dB, BER=5E-5
Single Ended Output Impedance		R_O		50		ohm	
Wavelength		λ	770		860	nm	
Sensitivity					-14.5	dBm	λ=850nm @25.78125Gbps, PRBS31, ER=4.7dB, BER=5E-5

Outline Dimensions (unit: mm)



Pinout:

Pin no.	Function
1	Gnd
2	Vcc
3	Gnd
4	Dout(-)
5	Dout(+)
6	Gnd
7	Isource
8	Gnd

Note: Specifications are subject to change without notice.