



RLC-M13P8255-3V

25Gbps LC Connectorized InGaAs PIN PD plus Pre-Amplifier with FPC

Overview

The Lasermate RLC-M13P8255-3V is a high-speed 25 Gbps InGaAs PIN photodiode module with an integrated pre-amplifier. Designed for fiber optic data communication, it features an LC connector with a flexible printed circuit (FPC) for easy integration. The module operates in the 1260–1360 nm wavelength range, offering high responsivity and precise optical detection for high-speed applications.



Features

- LC-type optical submodule with flexible circuit attached
- Supports data rate up to 25Gbps
- Photocurrent monitoring available
- Single power supply +3.3V

Applications

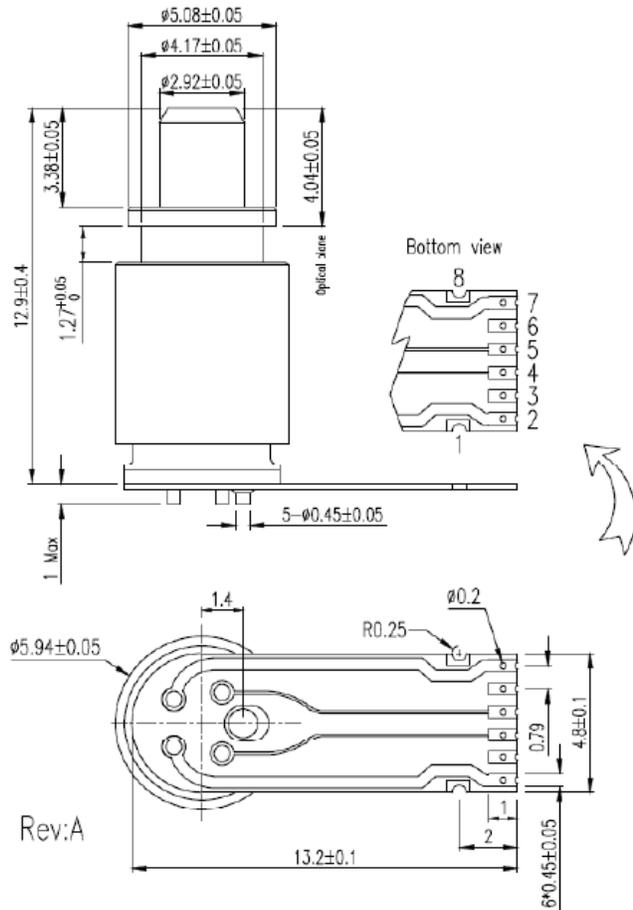
- High-speed fiber optic data communications
- Optical transceivers and modules
- Telecommunication and data center networks

Specifications

Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	100	°C	
Operating Temperature	-40	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	3.3	3.5	V	
Supply Current	I _{CC}		29		mA	No loads
Differential Responsivity	R _d		0.9		mV/uW	R _{load} =100ohm, P=-10dBm, λ=1310nm
TIA RSSI	Slope		0.25		mA/mA	TIA RSSI
	Offset		10		nA	
	Linearity Limit			2	mA	
Small-Signal Bandwidth	BW		17		GHz	In TIA linear gain region
Low-Frequency Cut off	LF		100		kHz	
Saturation Power	P _{Sat}	2			dBm	λ=1310nm @25.78125Gbps
Single Ended Output Impedance	R _O		50		ohm	
Wavelength	λ	1260		1360	nm	
Optical Return Loss	ORL	27			dB	λ=1310nm
Sensitivity				-14.0	dBm	λ=1310nm @25.78125Gbps, PRBS31, ER=4.3dB, BER=5E-5

Outline Dimensions (unit: mm)



Pin Configuration

Pin Number	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.