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RLC-M13P8256-3V
25Gbps LC Connectorized InGaAs PIN PD plus Pre-Amplifier with Flex

Overview

The Lasermate RLC-M13P8256-3V 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 circuit (FPC) for easy integration. The module operates in the 1260–1360 nm wavelength range, offering high responsivity and reliable optical detection for ultra-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

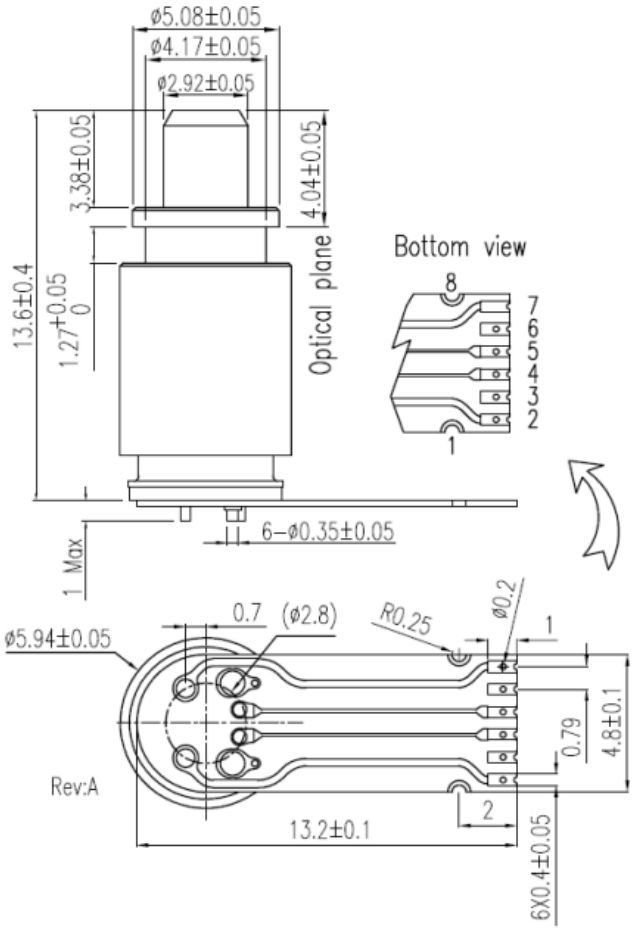
- High-speed fiber optic data communications
- Optical transceivers and modules

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}	3.0	3.3	3.5	V	
Supply Current		I_{CC}		31	45	mA	No loads
Differential Responsivity		R_d		0.55		mV/uW	R_{load}=100ohm, P=-10dBm, λ=1310nm
TIA RSSI	Slope			1		mA/mA	TIA RSSI
	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=1310nm @25.78125Gbps, PRBS31, ER=4.3dB, BER=5E-5
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.