



## RLC-P85P8106-3V

### 10Gbps LC Connectorized GaAs PIN plus Pre-Amplifier Photodiode with Flex

#### Overview

The Lasermate RLC-P85P8106-3V is a 770nm-860nm wavelength spectral range, GaAs photodiode, LC receptacle with flexible circuit designed for use in fiber optic data communication applications.



#### Features

- LC-type optical submodule with flexible circuit attached
- Optimized for fiber optic application
- Suitable for short wavelength 10.3125Gbps application
- Photocurrent monitoring available
- Single power supply +3.3V

#### Specifications

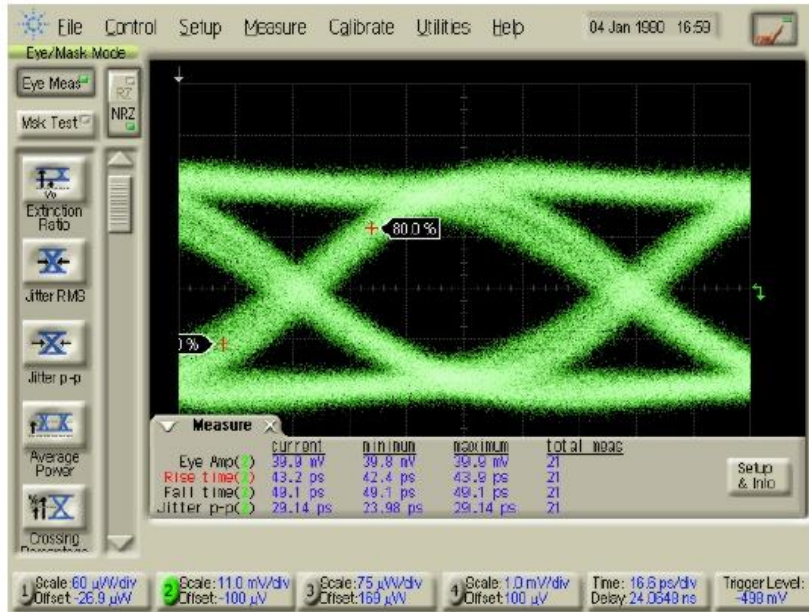
Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	100	°C	
Operating Temperature	-40	85	°C	
Lead Solder Temperature		260	°C	10 seconds
Flex Attach Temperature		370	°C	10 seconds

Electro-Optical Characteristics (CW @ T <sub>c</sub> = 25°C unless otherwise noted)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Power Supply	V <sub>CC</sub>	3.0	3.3	3.6	V	
Supply Current	I <sub>CC</sub>		34	45	mA	no loads
Differential Responsivity	R <sub>d</sub>	0.4	0.6	1.0	mV/μW	R <sub>load</sub> =100ohm, P=-12dBm, λ=850nm
Single Ended Responsivity	R <sub>s</sub>	0.2	0.3	0.5	mV/μW	R <sub>load</sub> =50ohm, P=-12dBm, λ=850nm
TIA RSSI				1.5	mA	Linear
Small-Signal Bandwidth	BW		7		GHz	P=-12dBm
Low-Frequency Cut off	LF		30		kHz	
Rise / Fall Time (20%~80%)	tr/tf		50		ps	P=-12dBm, λ=850nm
Saturation Power	P <sub>sat</sub>	0			dBm	
Single Ended Output Impedance	R <sub>O</sub>		50		ohm	
Wavelength	λ	770		860	nm	
Sensitivity				-13.5	dBm	λ=850nm @10.3125Gbps, PRBS31, ER=6dB, BER=1E-12

## Typical Characteristics

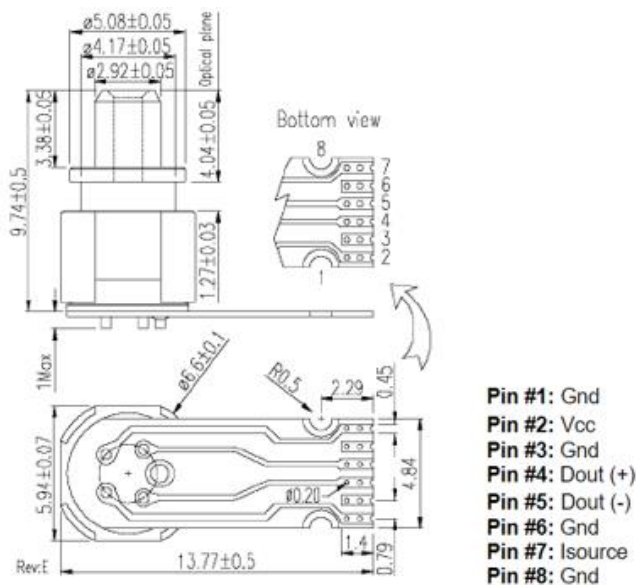
### Eye Diagram

R<sub>load</sub> = 50ohm, P = -12dBm @10.3125Gbps, 850nm, PRBS 31.



tr=43.2ps, tf=49.1ps, Jitter p-p=29.1ps

### Outline Dimensions (unit: mm)



Note: Specifications are subject to change without notice.