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PDT-A85P5-4GA3
4.25Gb/s GaAs PIN Photodiode with AGC Pre-Amplifier

Overview

The Lasermate PDT-A85P5-4GA3 is a high-speed 850nm GaAs PIN photodiode with an integrated AGC transimpedance pre-amplifier (TIA) in a 5-pin TO-46 package. It supports high-speed fiber optic data transmission up to 4.25Gbps and is optimized for short-wavelength fiber optic applications.

Features

- High-speed 850nm GaAs PIN photodiode with integrated AGC TIA
- 5-pin TO-46 package with cap lens and tab-less design
- Supports short-wavelength 4.25Gbps fiber optic applications
- Photocurrent monitoring available
- Operates with a single +3.3V power supply
- Optimized for fiber optic communication systems

Applications

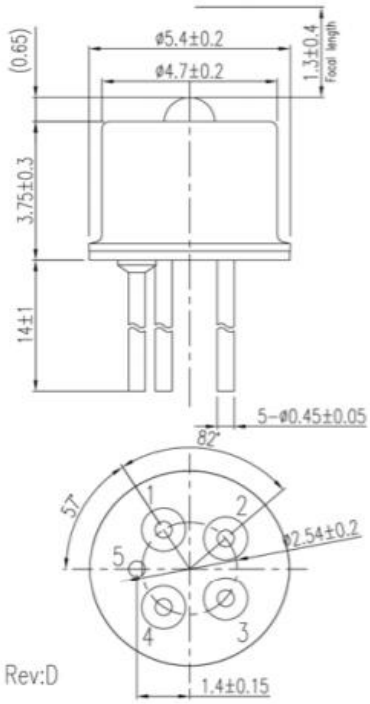
- High-speed fiber optic communication
- Short-wavelength 850nm data transmission

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

Electro-Optical Characteristics (T_A = 25°C)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Power supply	V_{CC}	3.0	3.3	3.6	V	
Supply current	I_{CC}	30	34	42	mA	No loads
Differential responsivity	Rd		1.2		mV/uW	λ=850nm, R_{load}=100ohm, P=-15dBm
Single ended responsivity	Rs		0.6		mV/uW	λ=850nm, R_{load}=50ohm, P=-15dBm
Small-signal bandwidth	BW		2.5		GHz	λ=850nm, P=-15dBm
Low frequency cut off	LF		15		kHz	
Rise/Fall Time (20-80%)	tr/tf		135		ps	λ=850nm, P=-15dBm
Saturation power	P_{sat}	0			dBm	
Single ended output impedance	R_O		50		ohm	
Wavelength	λ	770		860	nm	
Sensitivity				-21	dBm	λ=850nm, @4.25Gbps, PRBS7, ER=7dB, BER=10^{-10}

Outline Dimensions (unit: mm)



Pin Configuration

Pin Number	Function
1	Dout(+)
2	Vcc
3	Isource
4	Dout(-)
5	Gnd

Note: Specifications are subject to change without notice.