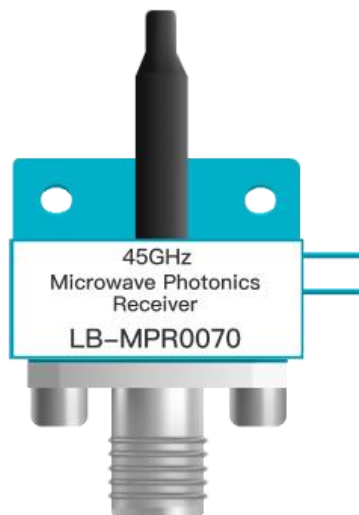


LB-MPR0070 Photodetector



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Overview

LB-MPR0070 is a PIN-based high-bandwidth photodetector that performs optical-to-electrical conversion. It features a built-in bias-T, with a typical 3 dB bandwidth of 65 GHz and an effective 6 dB bandwidth of ≥ 70 GHz, and a responsivity of ≥ 0.6 A/W. This product is suitable for applications in high-speed instrumentation, microwave photonic links, and other related technical fields.

Features

- Ultra-high bandwidth
- High optical responsivity
- Low dark current
- High reliability

Product Specifications

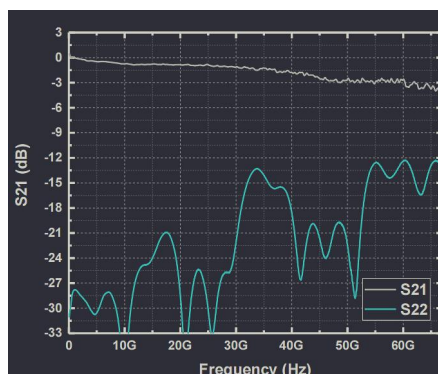
Item	Symbol	Test Condition	Min	Typ	Max	Unit
Operating Wavelength	λ		1260	1550	1570	nm
Responsivity	R	Popt=0dBm , Vr =+2 V , $\lambda=1550$ nm		0.6		A/W
Dark Current	Id	Vr =+2 V		20	60	nA
3 dB Bandwidth	BW	Popt=0dBm , Vr =+2 V , $\lambda=1550$ nm	60	65		GHz
RF Return Loss	S22	Popt=0dBm , Vr =+2V		-10		dB
Saturation Optical Power	Psat			7		dBm

Note: Unless otherwise specified, all measurements are taken at 25 °C.

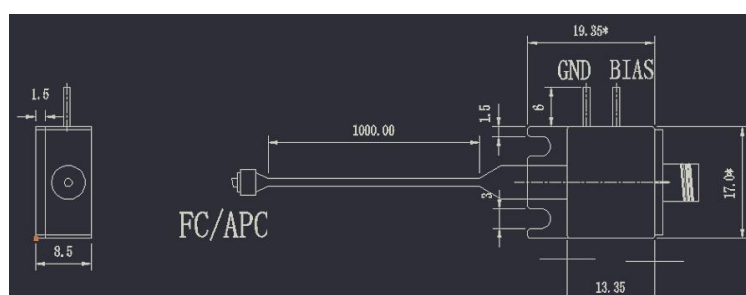
Maximum Absolute Ratings

Item	Symbol	Typical	Unit
Optical Power	Ps	10	dBm
Forward Bias Voltage	Vr	5	V
Operating Temperature	Top	-40 ~ +70	°C
Storage Temperature	Tstg	-55 ~ +85	°C

Typical Performance Specifications



Dimension and Pin Definition



Pin	Function Description
BIAS	+1-3V (Recommended+2V)
GND	Ground
Optical Fiber Interface	SMF Fiber, FC/APC connector, Pin≤10dBm
	(Recommended≤0dBm)
RF Interface	1.85mm, Female

Handling Precautions

- Appropriate ESD protection measures should be taken to avoid electrostatic damage.
- Do not pull the pigtail directly to prevent device damage.
- Keep the optical connector clean to avoid dust or contamination that may affect performance.

Standards Compliance

GJB 8120-2013 “General Specification for Semiconductor Optoelectronic Modules”

Ordering info

LB	MPR	Note	-70
Liniobate	Microwave Photonics Receiver	1.85 mm connector	Effective Bandwidth
			70 indicates 70 GHz