

InGaAs PIN PD-TIA

Features

- Low noise and high speed trans-impedance amplifier built-in to meet OC-48
- Low operating voltage of 3.3V
- High reliability
- 5 pin package available for a PD current monitor
- Pigtail type is available as an option

Package drawings are seen in datasheet of 'Package Option for KPDX, KPDXA, KPGX, KPIX Series.'

Applications

- Metro-Access
- Optical Ethernet, Optical LAN
- 1x/2x/4x Fiber channel receiver

Specifications

Absolute Maximum Ratings

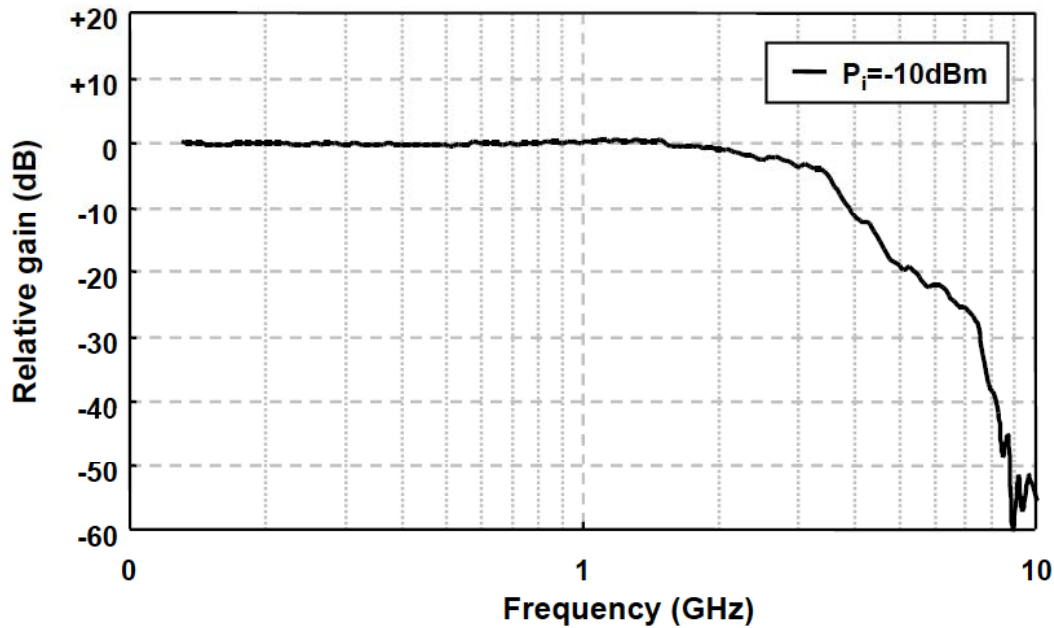
Parameter	Symbol	Value	Unit
Maximum optical power input	$P_{i\max}$	2.5	mW
Supply voltage	V_{cc}	-0.5 to 6.0	V
Operating temperature	T_{opr}	-40 to +85	°C
Storage temperature	T_{stg}	-40 to +85	°C

Electrical and Optical characteristics (Ta=25°C unless otherwise noted)

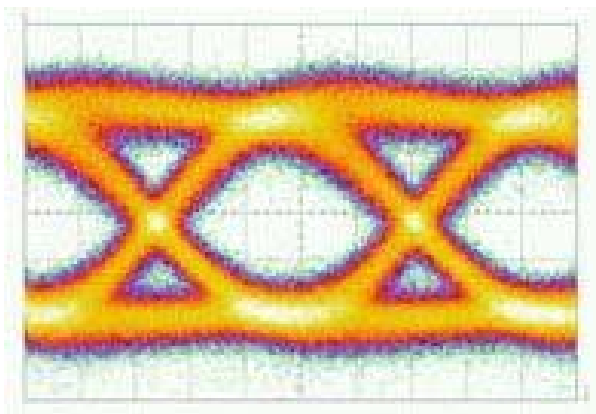
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Operating voltage	V_{op}	3.0	3.3	3.6	V	
Supply current	I_{cc}		24		mA	
Bit rate	BR	0.125		4.25	Gbps	
Bandwidth @-3dB	BW	2.6	3.0		GHz	$R_L=50\Omega$, $P_i=-10\text{dBm}$, small signal modulation
Optical sensitivity	P_{min}		-22		dBm	differential, BER=10 ⁻¹²
Output impedance	Z_o	40	50	60	Ω	single ended
Differential output voltage	V_o	160	200	240	mVpp	$R_L=50\Omega$
Photo-electric conversion efficiency	η_{PE}		4		kV/W	single ended, $R_L=50\Omega$

Specifications are subject to change without notice.

Frequency response

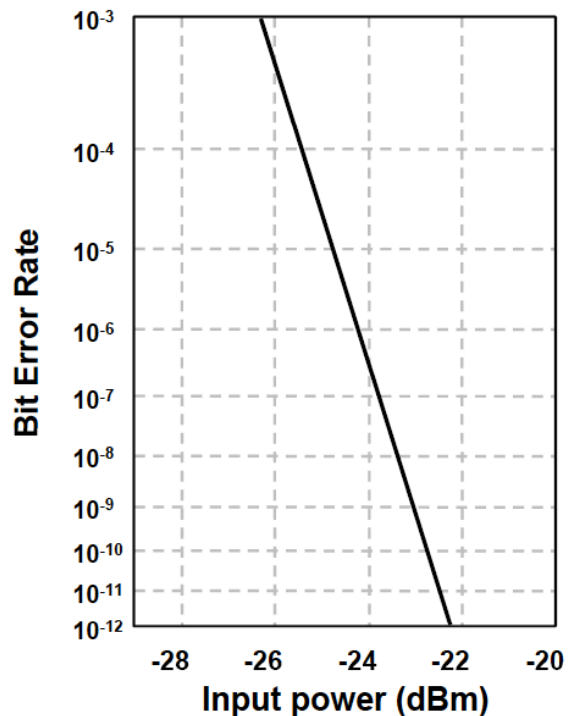


Eye Diagram



Hor.: 2.5mV/div, Ver.: 50ps/div,
P_i = -20dBm

KPDX4G Bit Error Rate



Specifications are subject to change without notice.

Contacts:

www.kyosemi.co.jp / info@kyosemi.co.jp

Kansai Sales Office: 949-2 Ebisu-cho, Fushimi-ku, Kyoto, 612-8201 Japan Tel: +81 75 605 7311 Fax: +81 75 605 7312 (Overseas Sales Dept.)
 Tokyo Sales Office: 24th Sky Building, 2nd Floor, 1-34-3 Shinjuku, Shinjuku-ku, Tokyo 160-0022 Japan Tel: +81 3 5312 5360 Fax: +81 3 5312 5367
 Eniwa Operation: 385-31 Toiso, Eniwa-shi, Hokkaido 061-1405 Japan Tel: +81 123 34 3111 Fax: +81 123 34 2110
 Kyosemi Opto America Corp: 3003 Bunker Hill Lane, Suite 102, Santa Clara, CA 95054 USA Tel: +1 408 492 1486 Fax: +1 408 492 9843