

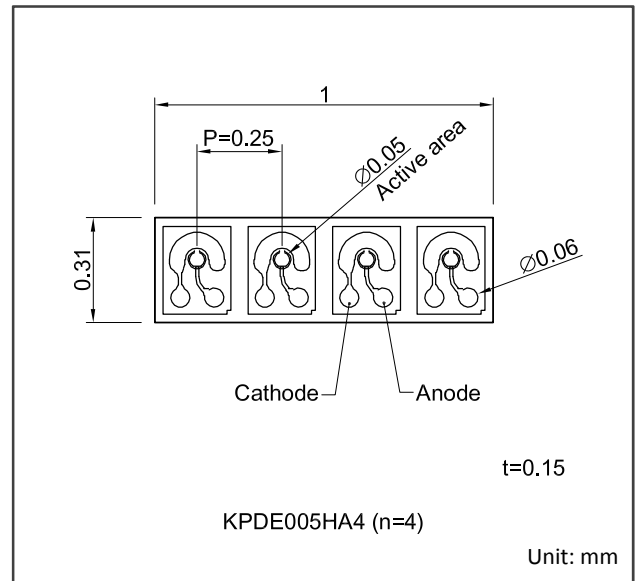
Features

- Surface illuminated type
- Large active diameter ($\phi 50\mu\text{m}$)
- Low dark current
- High reliability

Applications

- Optical interconnection
- 10G Ethernet / Fibre Channel

* KPDE005HAn (n: number of channels = 1,2,4,8,12)



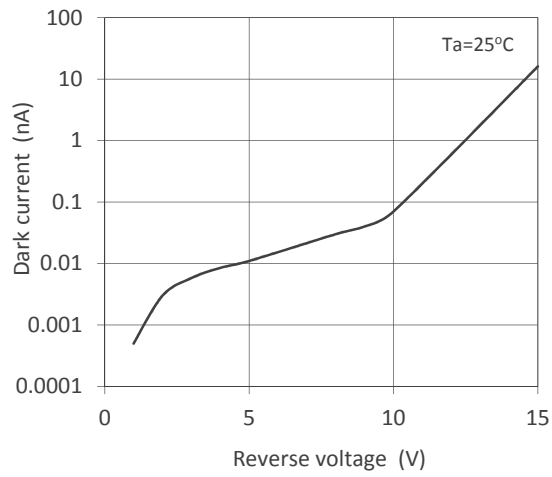
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Note
Reverse voltage	V_R	15	V	
Reverse current	I_R	10	mA	
Forward current	I_F	5	mA	
Operating temperature	T_{opr}	-40 to +85	$^{\circ}\text{C}$	Avoid dew condensation
Storage temperature	T_{stg}	-40 to +85	$^{\circ}\text{C}$	Avoid dew condensation

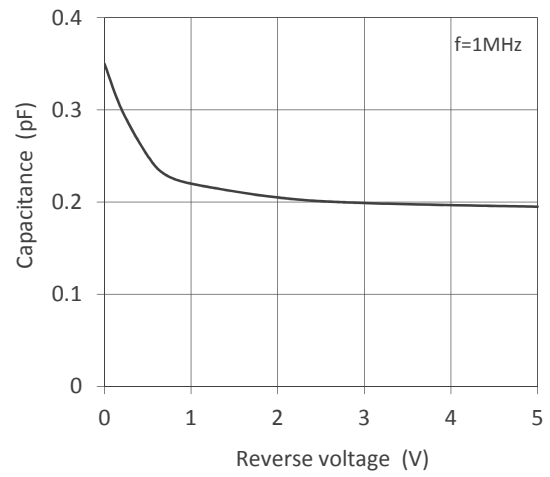
Electrical and Optical Characteristics (Ta=25 $^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Active diameter	D	50			μm	
Bandwidth	BW	7.0	8.0	-	GHz	$\lambda=1550\text{nm}$, $P_i=0\text{dBm}$, Small signal modulation, $V_R=5\text{V}$
Responsivity	R	0.75	0.8	-	A/W	$\lambda=1550\text{nm}$, $V_R=5\text{V}$
Dark current	I_D	-	30	200	pA	$V_R=5\text{V}$
Chip capacitance	C_{chip}	-	0.2	0.3	pF	$V_R=5\text{V}$, $f=1\text{MHz}$

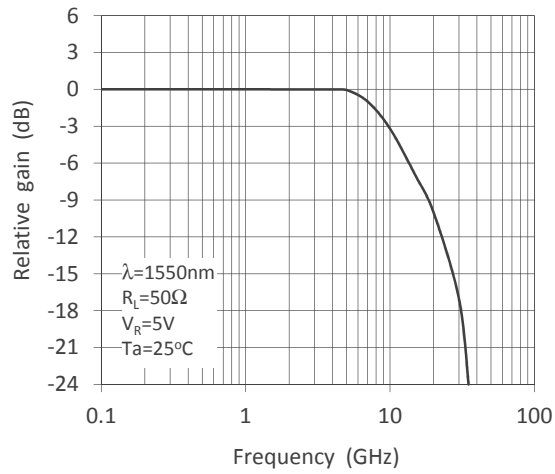
Dark Current - Reverse Voltage



Capacitance - Reverse Voltage



Frequency Response



- Specifications , characteristics, data, materials, structures specified in this datasheet are subject to change without notice. Please refer to the latest specification before use of the products.
- Products listed in this datasheet comply with the RoHS Directive (EU2002/95/EC).

Opto-technologies for the Future



KYOSEMI CORPORATION

<http://www.kyosemi.co.jp/>

Headquarters : 949-2 Ebisucho Fushimi-ku, Kyoto 612-8201 Japan

TEL: +81-75-605-7311

Tokyo Sales Office: 24th Sky Bldg.2F, 1-34-3 Shinjuku Shinjuku-ku, Tokyo 160-0022 Japan

TEL: +81-3-5312-5360

Kansai Sales Office: 949-2 Ebisucho Fushimi-ku, Kyoto 612-8201 Japan

TEL: +81-75-605-7311

Kyosemi Opto America Corp: 4655 Old Ironsides Suite 230 Santa Clara, California 95054 USA

TEL: +1-408-492-9361

Eniwa Operation: 385-31 Toiso Eniwa-shi, Hokkaido 061-1405 Japan

TEL: +81-123-34-3111

Kamisunagawa Operation: 70-1 Kamisunagawa Kamisunagawa-cho Sorachi-gun, Hokkaido 073-0200 Japan

TEL: +81-125-62-3611