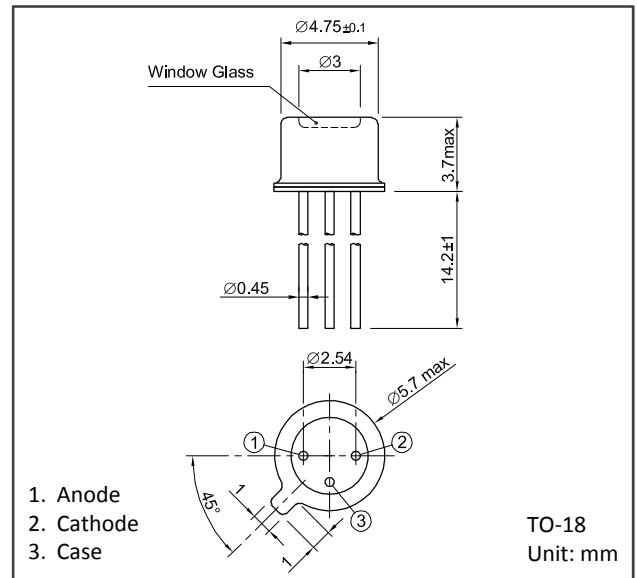


**Features**

- Cutoff wavelength 2200nm
- Much higher responsivity and speed than conventional near infrared (NIR) detectors
- Operable with the photovoltaic mode under zero bias or low reverse bias mode

**Applications**

- Gas analyzers
- Water content analyzers
- Hydrocarbon sensors
- NIR spectroscopy
- Radiometry
- Power meters

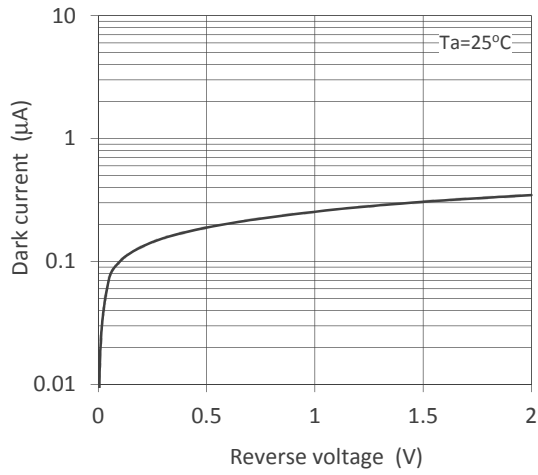
**Absolute Maximum Ratings**

Parameter	Symbol	Value	Unit	Note
Forward current	$I_F$	10	mA	
Reverse voltage	$V_R$	2	V	
Reverse current	$I_R$	2	mA	
Operating temperature	$T_{opr}$	-40 to +85	°C	Avoid dew condensation
Storage temperature	$T_{stg}$	-55 to +125	°C	Avoid dew condensation
Soldering temperature	$T_{sol}$	260	°C	Max 5 sec.

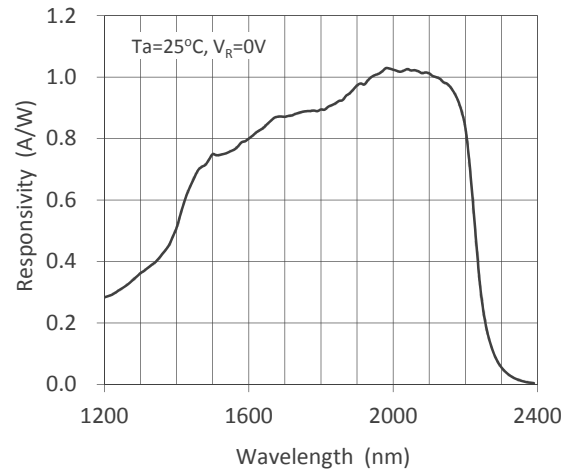
**Electrical and Optical Characteristics (Ta=25°C unless otherwise noted)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Active diameter	D	300			$\mu\text{m}$	
Sensitive wavelength range	$\lambda$	1200 – 2200			nm	
Peak sensitive wavelength	$\lambda_p$	-	2000	-	nm	
Responsivity	R	-	1.0	-	A/W	$V_R=0V, \lambda=1950\text{nm}$
Dark current	$I_D$	-	0.25	-	$\mu\text{A}$	$V_R=1V$
Bandwidth	BW	-	100	-	MHz	$V_R=1V, R_L=50\Omega$
Terminal capacitance	$C_t$	-	20	-	pF	$V_R=1V, f=1\text{MHz}$

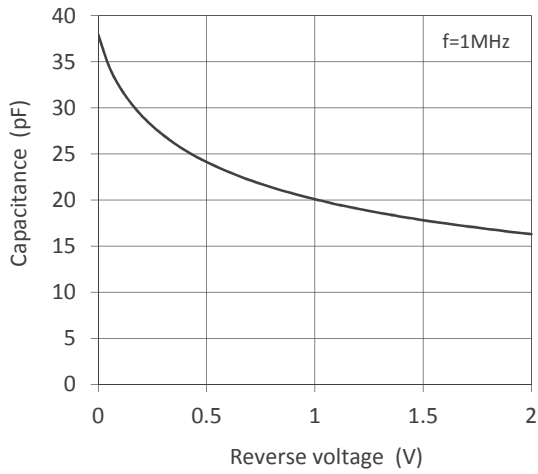
**Dark Current - Reverse Voltage**



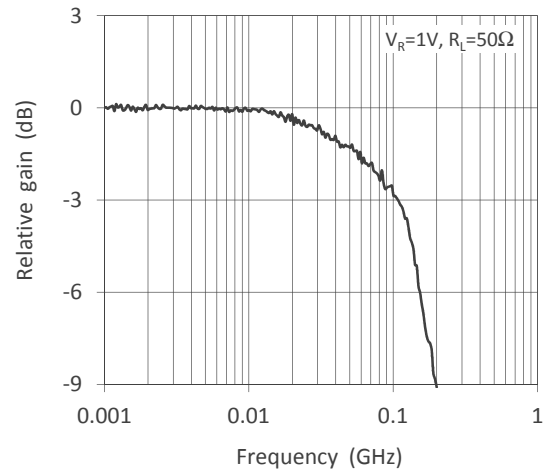
**Spectral Responsivity**



**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:** 24<sup>th</sup> 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