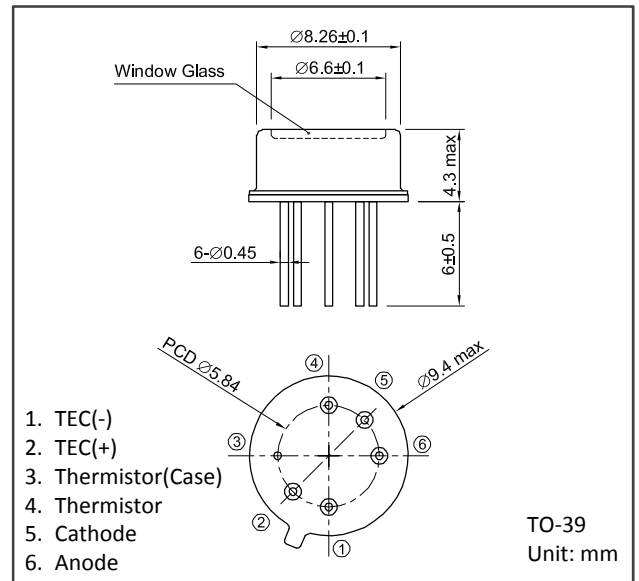


Features

- 860 μm sq. large sensitive area
- Low dark current
- High shunt resistance
- Electrically cooled with TEC and thermistor

Applications

- Near IR sensors
- Near IR spectroscopy
- Power meters



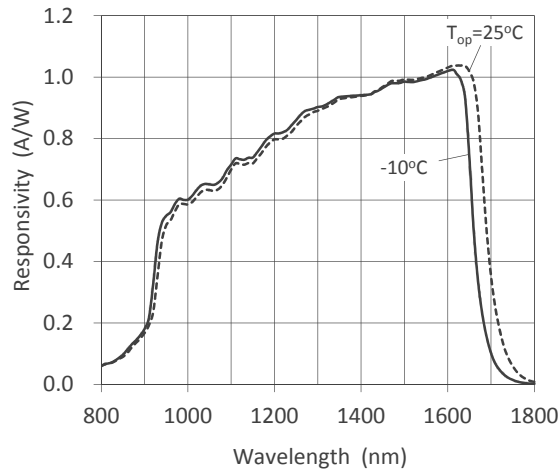
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Note
Reverse voltage	V_R	20	V	
Maximum optical power input	$P_{i(max)}$	50	mW	
Power dissipation	P_D	100	mW	
Forward current	I_F	50	mA	
TEC current	I_C	1.0	A	
Thermistor power rating	P_{th}	1.5	mW	
Operating temperature	T_{opr}	-40 to +70	$^{\circ}\text{C}$	Avoid dew condensation
Storage temperature	T_{stg}	-40 to +85	$^{\circ}\text{C}$	Avoid dew condensation

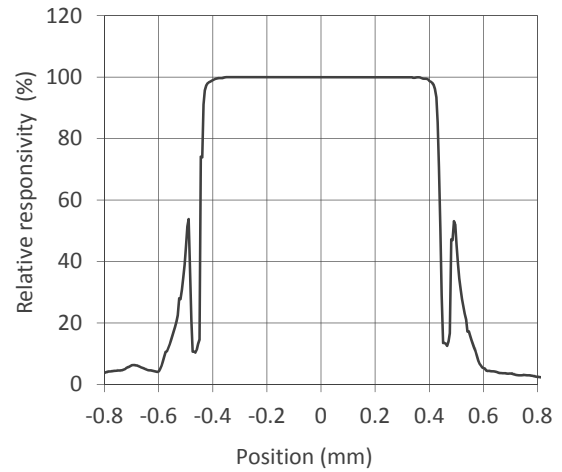
Electrical and Optical Characteristics (Ta=25 $^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Active area	S	860 x 860			μm^2	
Responsivity	R	0.8	0.9	-	A/W	$\lambda=1310\text{nm}$
		0.9	1.0	-	A/W	$\lambda=1550\text{nm}$
Dark current	I_D	-	1.0	10	nA	$V_R=5\text{V}$
Terminal capacitance	C_t	-	45	60	pF	$V_R=5\text{V}, f=1\text{MHz}$

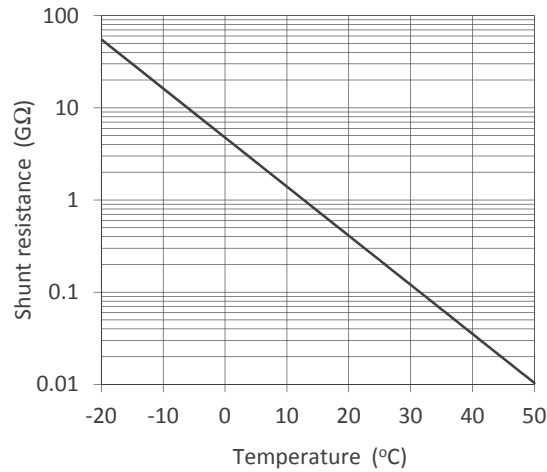
Spectral Responsivity



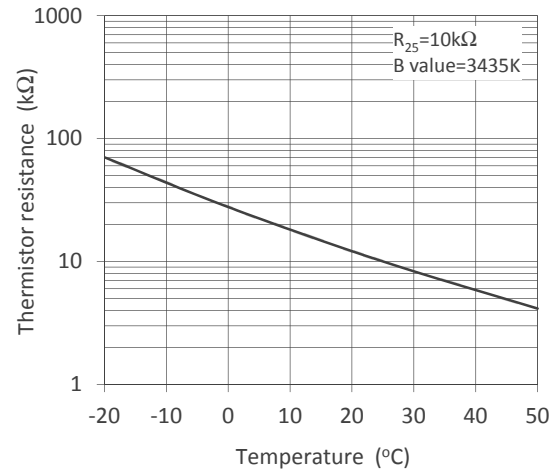
Responsivity Distribution



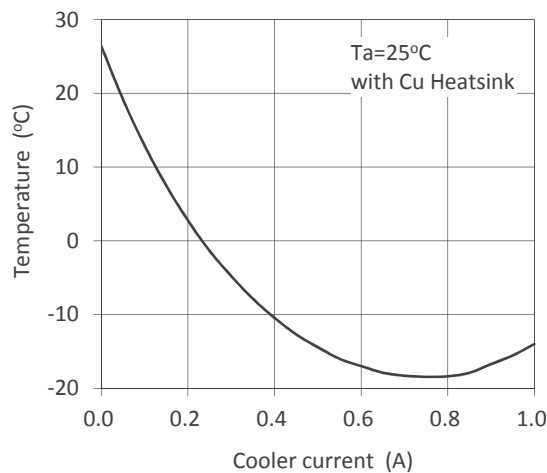
Shunt Resistance - Temperature



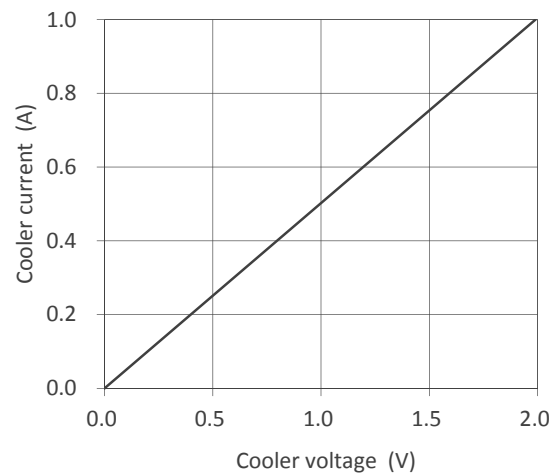
Thermistor Resistance - Temperature



TEC Temperature - Current



TEC Current - Voltage



- 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