

红外光电器件之

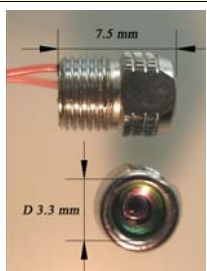
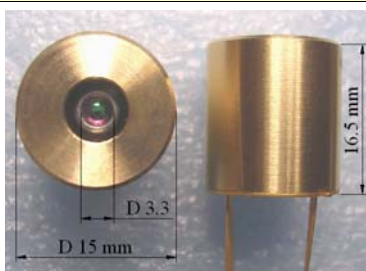
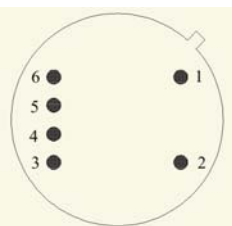
中红外 PD 探测器资料

我公司同时提供:

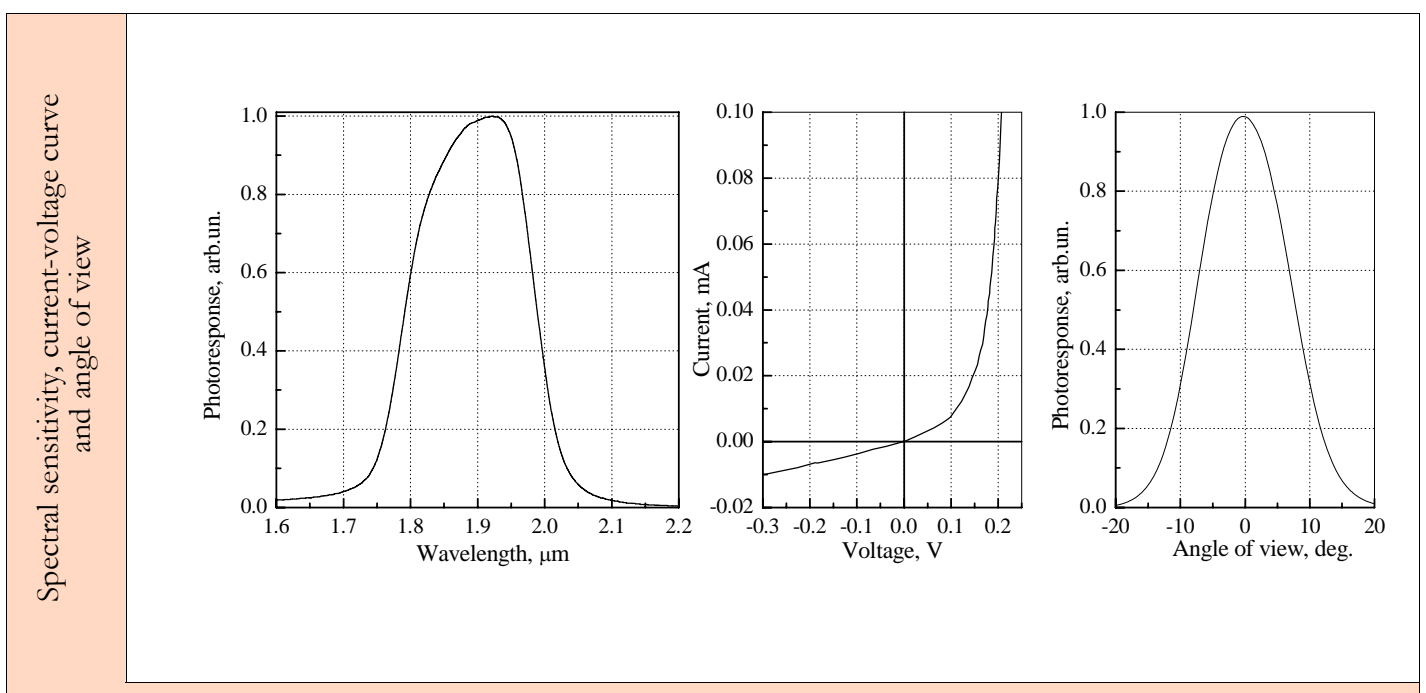
电调制脉冲红外灯泡
直流稳态红外灯泡
中红外 LED
红外反射材料
消杂光涂料

Optically Immersed 1.9 μm photodiode			PD19Sc
Peak wavelength	λ	μm	1.9
Cutoff wavelength (10 %)	λ_{co}	μm	2.05
Detectivity	$D^*_{\lambda_{\text{max}}}$	$\text{cmHz}^{1/2}\text{W}^{-1}$	$(0.7\pm 1)\times 10^{11}$
Current sensitivity	S_I	A/W	0.3 \div 0.5
Voltage sensitivity	S_U	V/W	3000 \div 6000
Resistance at zero bias	R_0	Ohm	10 \div 20 k
Switching time	τ	ns	≤ 20

Code	Thread	Sensitive area, mm	Lens material	Angle of view FWHM, deg.	Operation (storage) conditions, $^{\circ}\text{C}$	Polarity
PD19Sc	M5 \times 0.5	\varnothing 3.3	Si	≤ 20	-25 \div +60 (+80)	short wire or black point is negative
PD19TO8TEC			Si lens and quartz window			See fig. below

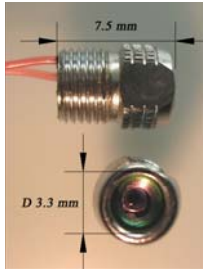
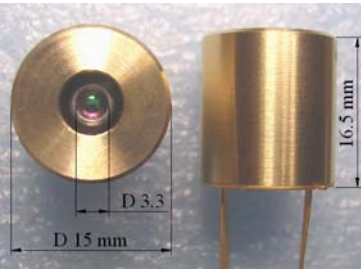
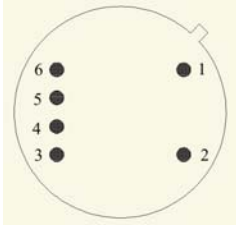
	PD19Sc	PD19TO8TEC	
Product view			 <p>1 TEC - 2 TEC + 3 PD + 4 thermosensor 5 thermosensor 6 PD -</p> <p>TEC and thermosensor specifications are available on request.</p>

- ✓ All devices are stressed at 80 $^{\circ}\text{C}$ for 10 hrs before final test and shipping to a customer.
- ✓ Angle of view of the PD is small and thus we recommend adjusting PD position before final evaluation/use of the devices.
- ✓ All data are valid for room temperature (22 $^{\circ}\text{C}$).
- ✓ PD could be equipped with preamplifier. Preamplifier has been designed for conversion of PD photocurrent into a convenient output voltage. Normally each preamplifier is adjusted for the particular PD and specifications issued by a customer (e.g. taking into account the R_0 value and frequency range).

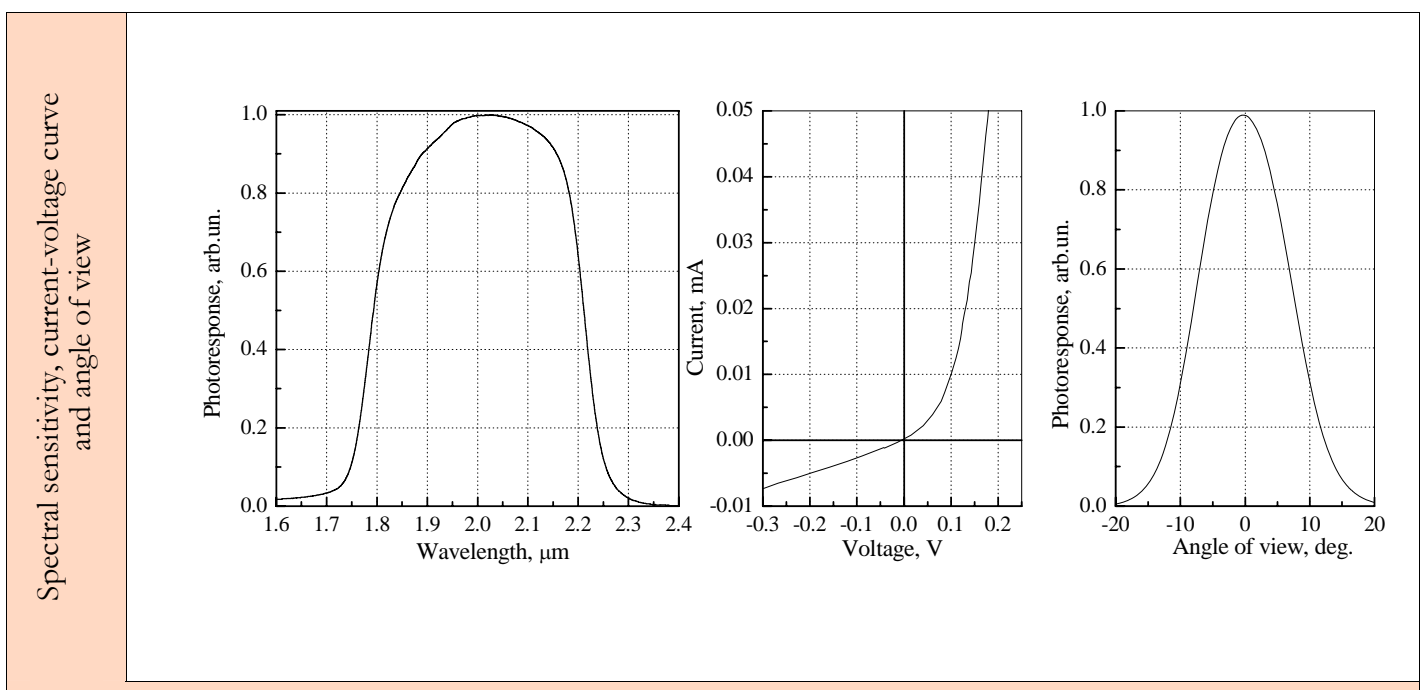


Optically Immersed 2.1 μm photodiode			PD21Sc
Peak wavelength	λ	μm	2.0 \div 2.1
Cutoff wavelength (10 %)	λ_{co}	μm	2.25
Detectivity	$D^*_{\lambda_{\text{max}}}$	$\text{cmHz}^{1/2}\text{W}^{-1}$	$\geq 0.7 \times 10^{11}$
Current sensitivity	S_I	A/W	≥ 0.5
Voltage sensitivity	S_U	V/W	≥ 3500
Resistance at zero bias	R_0	Ohm	$\geq 7 \text{ k}$
Switching time	τ	ns	≤ 20

Code	Thread	Sensitive area, mm	Lens material	Angle of view FWHM, deg.	Operation (storage) conditions, °C	Polarity
PD21Sc	M5x0.5	$\varnothing 3.3$	Si	≤ 20	-25 \div +60 (+80)	short wire or black point is negative
PD21TO8TEC			Si lens and quartz window			See fig. below

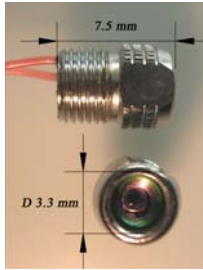
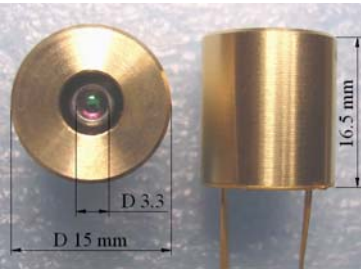
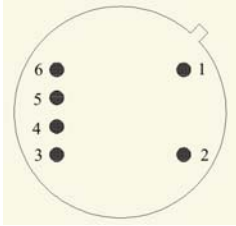
Product view	PD21Sc	PD21TO8TEC	
			

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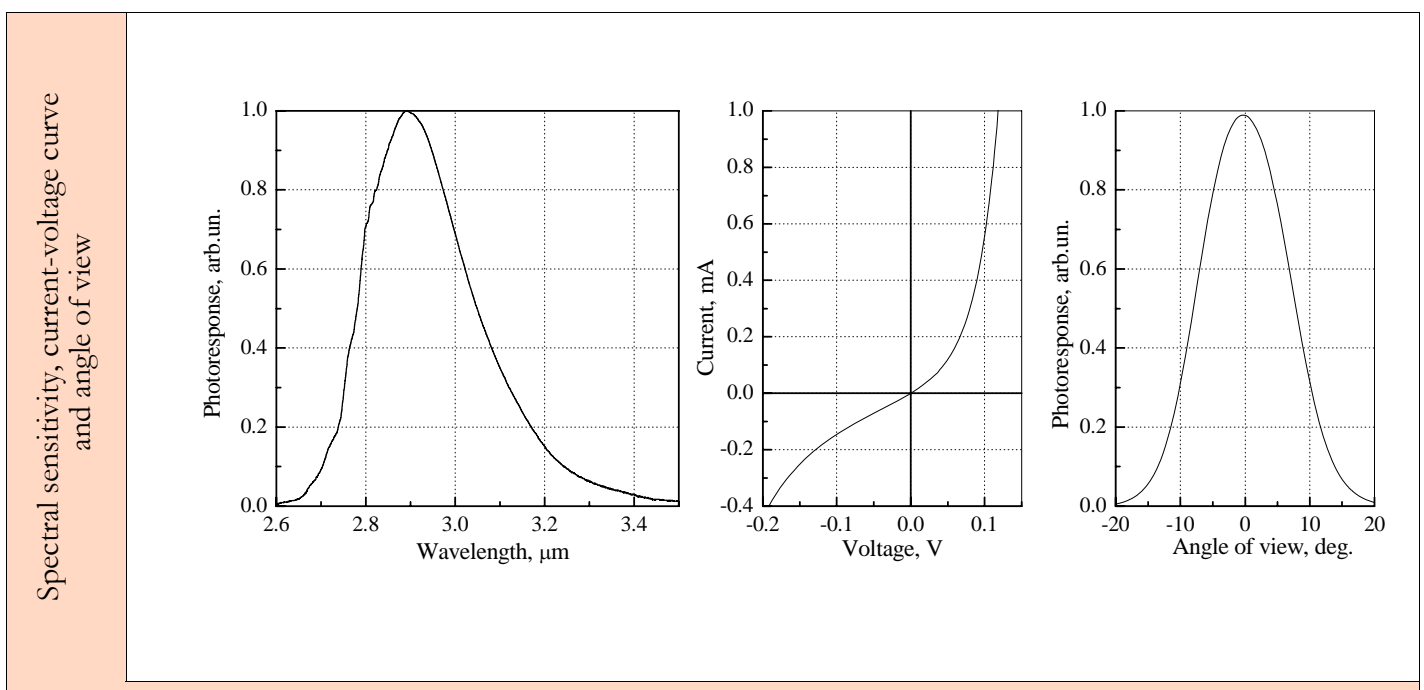


Optically Immersed 2.9 μm photodiode			PD29Sc
Peak wavelength	λ	μm	2.85 \div 2.95
Cutoff wavelength (10 %)	λ_{co}	μm	3.2 \div 3.3
Detectivity	$D^*_{\lambda_{\text{max}}}$	$\text{cmHz}^{1/2}\text{W}^{-1}$	$\geq 6 \times 10^{10}$
Current sensitivity	S_I	A/W	≥ 0.6
Voltage sensitivity	S_U	V/W	≥ 900
Resistance at zero bias	R_0	Ohm	$\geq 1.5\text{k}$
Switching time	τ	ns	≤ 20

Code	Thread	Sensitive area, mm	Lens material	Angle of view FWHM, deg.	Operation (storage) conditions, $^{\circ}\text{C}$	Polarity
PD29Sc	M5 \times 0.5	\varnothing 3.3	Si	≤ 20	-25 \div +60 (+80)	short wire or black point is negative
PD29TO8TEC			Si lens and quartz window			See fig. below

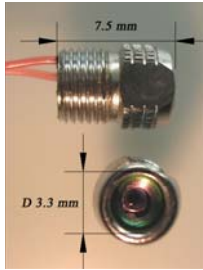
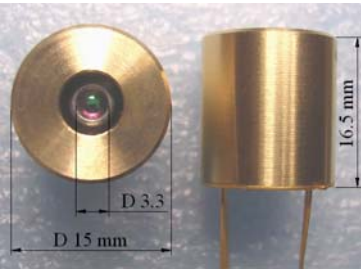
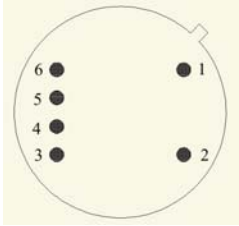
	PD29Sc	PD29TO8TEC	
Product view			 <p>1 TEC - 2 TEC + 3 PD + 4 thermosensor 5 thermosensor 6 PD -</p> <p>TEC and thermosensor specifications are available on request.</p>

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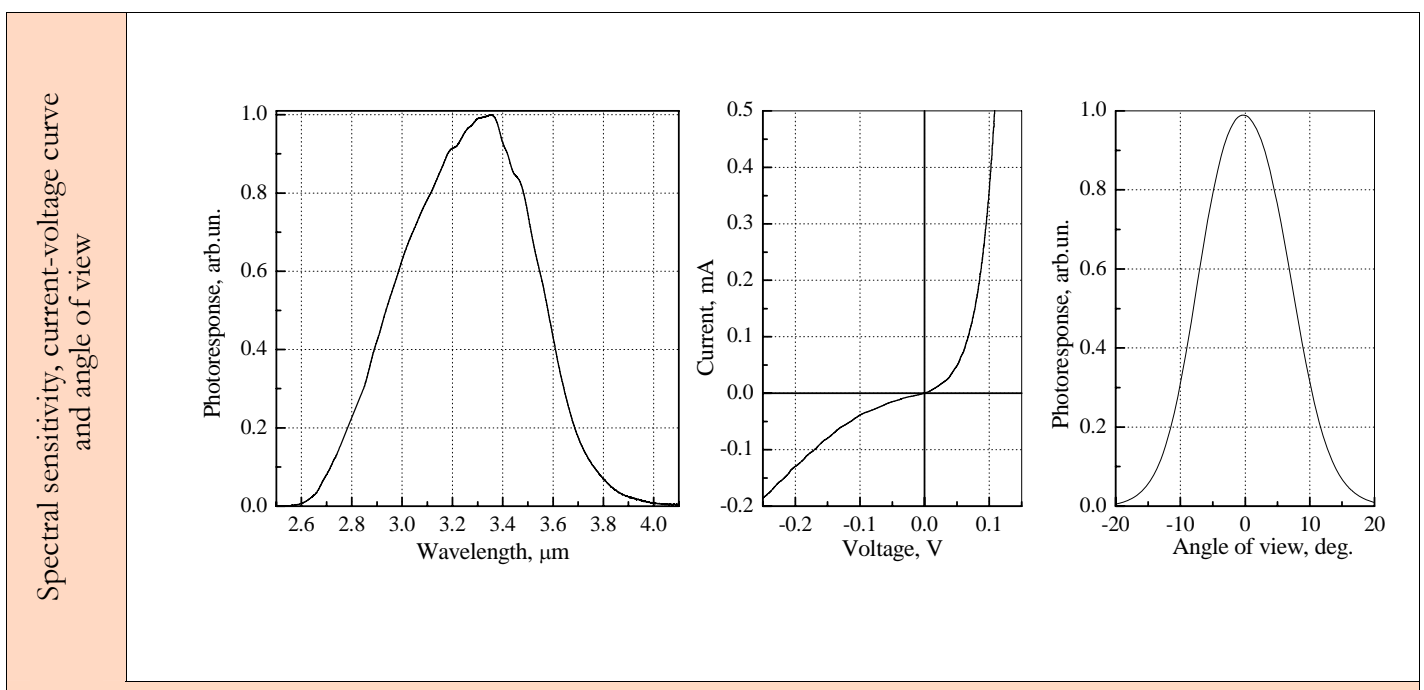


Optically Immersed 3.4 μm photodiode			PD34Sc
Peak wavelength	λ	μm	3.35
Cutoff wavelength (10 %)	λ_{co}	μm	3.7
Detectivity	$D^*_{\lambda_{\text{max}}}$	$\text{cmHz}^{1/2}\text{W}^{-1}$	$\geq 1 \times 10^{11}$
Current sensitivity	S_I	A/W	≥ 1.0
Voltage sensitivity	S_U	V/W	≥ 1000
Resistance at zero bias	R_0	Ohm	$\geq 1\text{k}$
Switching time	τ	ns	≤ 20

Code	Thread	Sensitive area, mm	Lens material	Angle of view FWHM, deg.	Operation (storage) conditions, °C	Polarity
PD34Sc	M5x0.5	Ø 3.3	Si	≤ 20	-25÷+60 (+80)	short wire or black point is negative
PD34TO8TEC			Si lens and quartz window			See fig. below

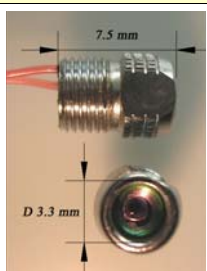
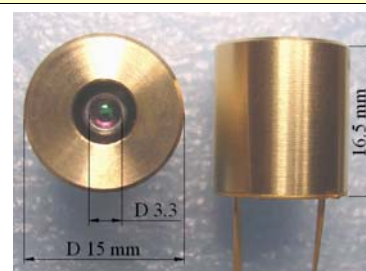
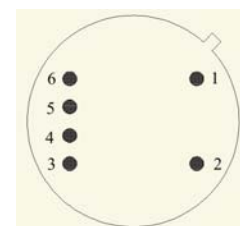
	PD34Sc	PD34TO8TEC	
Product view			 <p>1 TEC - 2 TEC + 3 PD + 4 thermosensor 5 thermosensor 6 PD -</p> <p>TEC and thermosensor specifications are available on request.</p>

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- ✓ Angle of view of the PD is small and thus we recommend adjusting PD position before final evaluation/use of the devices.
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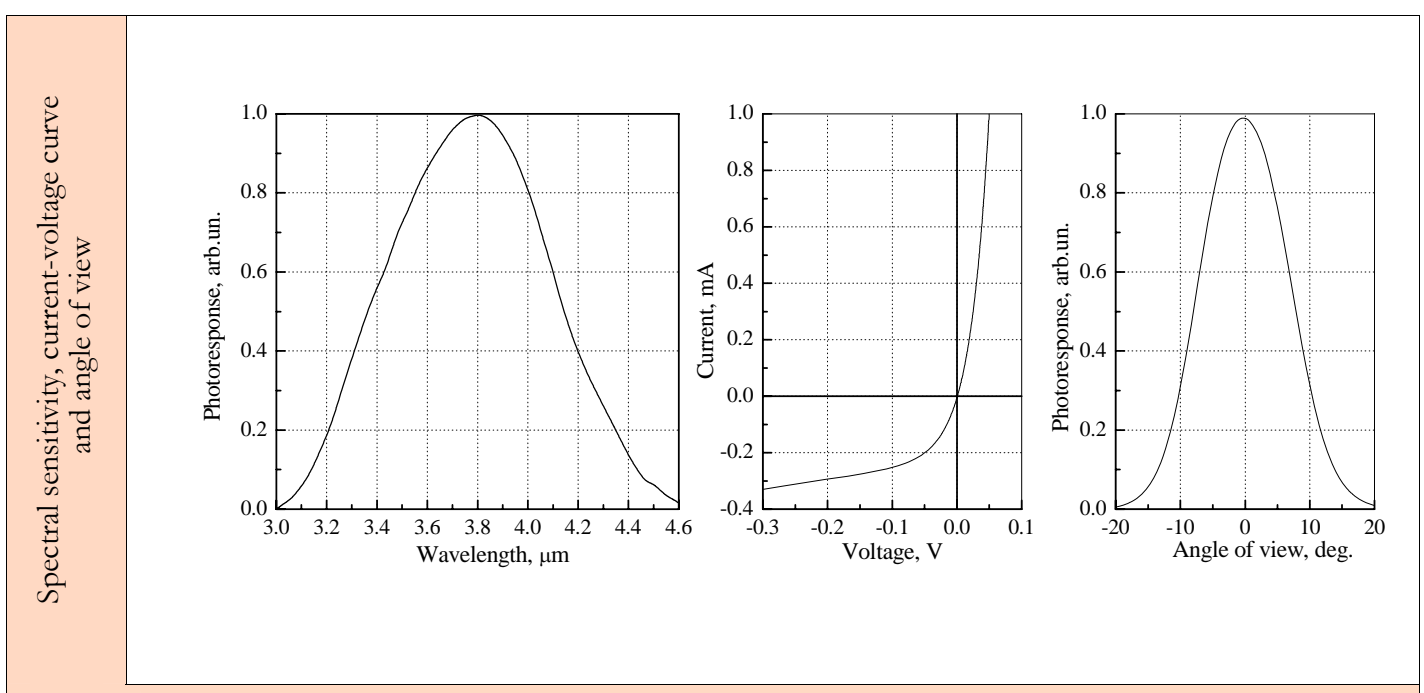


Optically Immersed 3.8 μm photodiode			PD38Sc
Peak wavelength	λ	μm	3.7÷3.9
Cutoff wavelength (10 %)	λ_{co}	μm	4.4÷4.5
Detectivity	$D^*_{\lambda_{\text{max}}}$	$\text{cmHz}^{1/2}\text{W}^{-1}$	$\geq 1.4 \times 10^{10}$
Current sensitivity	S_I	A/W	≥ 1.0
Voltage sensitivity	S_U	V/W	≥ 100
Resistance at zero bias	R_0	Ohm	≥ 100
Switching time	τ	ns	≤ 20

Code	Thread	Sensitive area, mm	Lens material	Angle of view FWHM, deg.	Operation (storage) conditions, °C	Polarity
PD38Sc	M5×0.5	Ø 3.3	Si	≤ 20	-25÷+60 (+80)	short wire or black point is negative
PD38TO8TEC			Si lens and quartz window			See fig. below

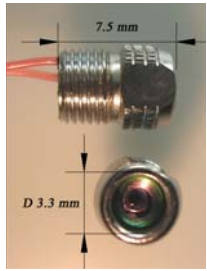
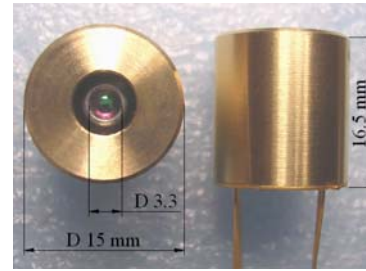
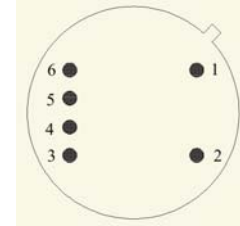
Product view	PD38Sc	PD38TO8TEC	
			

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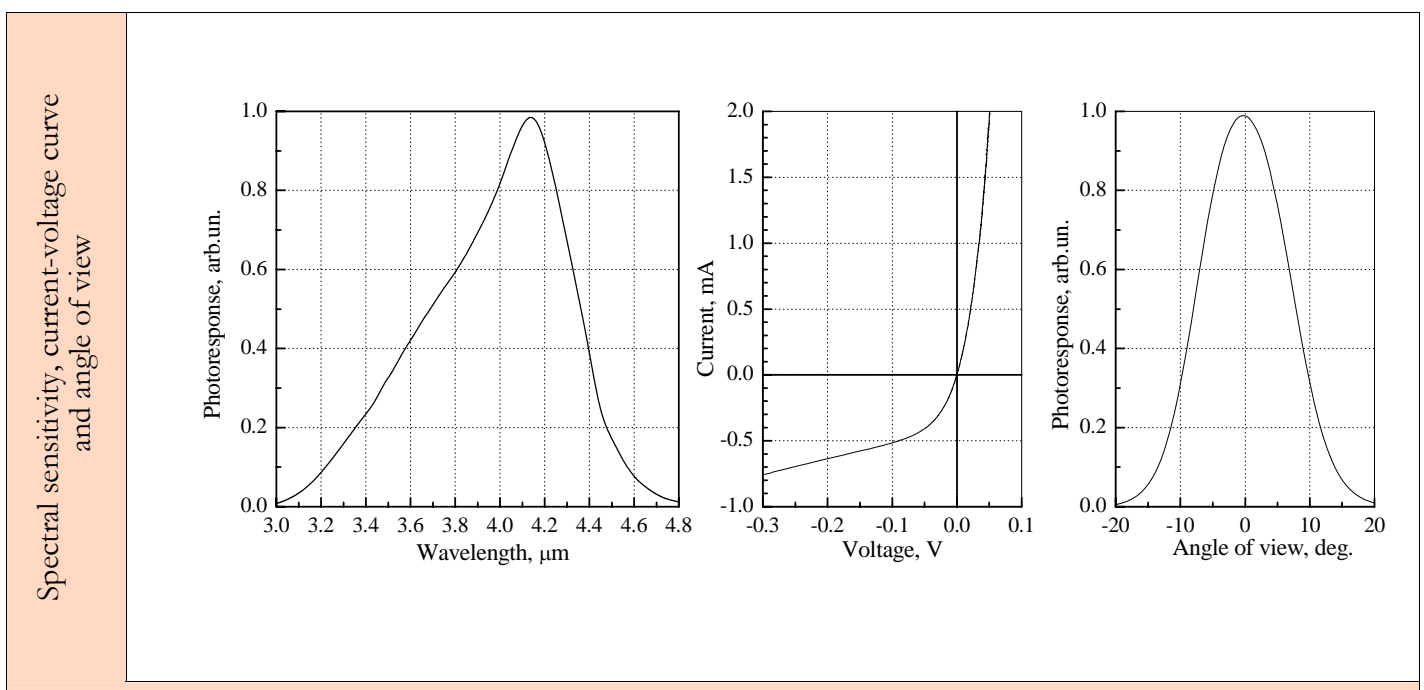


Optically Immersed 4.2 μm photodiode			PD42Sc
Peak wavelength	λ	μm	4.15 \pm 0.1
Cutoff wavelength (10 %)	λ_{co}	μm	4.5 \div 4.6
Detectivity	$D^*_{\lambda_{\text{max}}}$	$\text{cmHz}^{1/2}\text{W}^{-1}$	(0.7 \div 1) $\times 10^{10}$
Current sensitivity	S_I	A/W	≥ 1.0
Voltage sensitivity	S_U	V/W	20 \div 40
Resistance at zero bias	R_0	Ohm	20 \div 40
Switching time	τ	ns	≤ 20

Code	Thread	Sensitive area, mm	Lens material	Angle of view FWHM, deg.	Operation (storage) conditions, °C	Polarity
PD42Sc	M5 \times 0.5	$\varnothing 3.3$	Si	≤ 20	-25 \div +60 (+80)	short wire or black point is negative
PD42TO8TEC			Si lens and quartz window			See fig. below

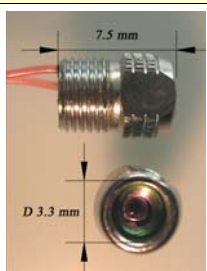
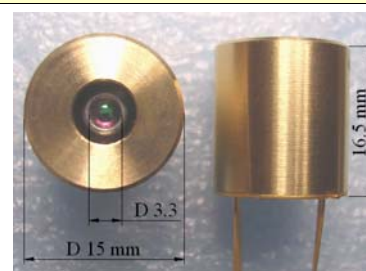
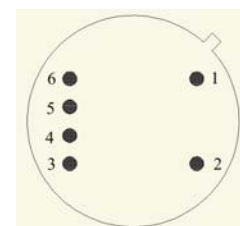
	PD42Sc	PD42TO8TEC	
Product view			 <p>1 TEC - 2 TEC + 3 PD + 4 thermosensor 5 thermosensor 6 PD -</p> <p>TEC and thermosensor specifications are available on request.</p>

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Optically Immersed 4.5 μm photodiode			PD45Sc
Peak wavelength	λ	μm	4.55 \pm 0.1
Cutoff wavelength (10 %)	λ_{co}	μm	5.1
Detectivity	$D^*_{\lambda_{\text{max}}}$	$\text{cmHz}^{1/2}\text{W}^{-1}$	$\geq 5 \times 10^9$
Current sensitivity	S_I	A/W	≥ 0.6
Voltage sensitivity	S_U	V/W	≥ 6
Resistance at zero bias	R_0	Ohm	≥ 10
Switching time	τ	ns	≤ 20

Code	Thread	Sensitive area, mm	Lens material	Angle of view FWHM, deg.	Operation (storage) conditions, $^{\circ}\text{C}$	Polarity
PD45Sc	M5x0.5	\varnothing 3.3	Si	≤ 20	-25 \div +60 (+80)	short wire or black point is negative
PD45TO8TEC			Si lens and quartz window			See fig. below

	PD45Sc	PD45TO8TEC	
Product view			 <p>1 TEC - 2 TEC + 3 PD + 4 thermosensor 5 thermosensor 6 PD -</p> <p>TEC and thermosensor specifications are available on request.</p>

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