

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48

Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73

Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Саранск (8342)22-96-24
Санкт-Петербург (812)-309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35

Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

Эл. почта: sao@nt-rt.ru || Сайт: <https://laser.nt-rt.ru>

PbS Detectors Uncooled PB25-Series

Description

The PB25 series is a collection of uncooled photoconductive single element PbS detectors that operate at room temperature with a 20% cut-off of 3.0 μm . This series is widely used in analytic, safety and radiometric applications especially when large active areas are requested.

Features

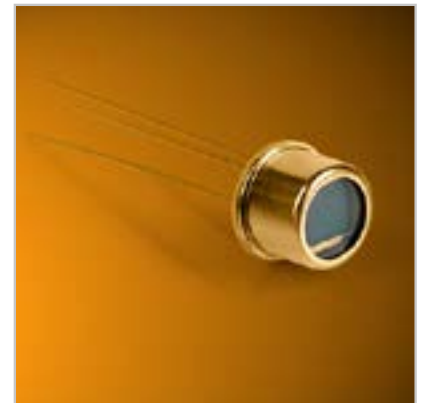
- Spectral range from 1 to 3.0 μm
- State of the art performance
- 100% test data

Applications

- Pulp and paper industry
- Non-contact temperature measurement
- Spark detection
- Flame control
- Moisture monitoring
- FTNIR

Versions

- TO-can (TO-46, TO-39, TO-8)
- Sapphire window as standard
- Custom versions available



PbS Detectors Uncooled PB25-Series

Basic Characteristics, Specifications @ 23 °C

For all PB25 versions	20% Cut-off Wavelength [μm] ^b	Peak Wavelength [μm] ^b	Time Constant [μs] ^b	
	typ.	typ.	typ.	max.
	2.6	2.4	200	400

Part number	Element Size [mm ²]	Aperture Size [mm]	Features	Peak Responsivity [V/W] ^{ac}		Noise Density (rms)	
				min	typ	90 Hz	650 Hz
						typ	typ
PB25S10104S	1.0 x 1.0	dia. 3.0	TO-46, short cap	560000	800000	4.2	1.4
PB25G10104	1.0 x 1.0	dia. 3.81	TO-46, glass cap	560000	800000	4.2	1.4
PB25S10109S	1.0 x 1.0	dia. 6.35	TO-39, short cap	560000	800000	4.2	1.4
PB25G10109	1.0 x 1.0	dia. 6.60	TO-39, glass cap	560000	800000	4.2	1.4
PB25G10254	1.0 x 2.5	dia. 3.81	TO-46, glass cap	220000 ^{a1}	330000 ^{a1}	TBD	TBD
PB25G10259	1.0 x 2.5	dia. 6.60	TO-39, glass cap	220000 ^{a1}	330000 ^{a1}	TBD	TBD
PB25S20209S	2.0 x 2.0	dia. 6.35	TO-39, short cap	280000	400000	4.2	1.4
PB25G20209	2.0 x 2.0	dia. 6.60	TO-39, glass cap	280000	400000	4.2	1.4
PB25S30309S	3.0 x 3.0	dia. 6.35	TO-39, short cap	185000	260000	TBD	TBD
PB25G3030	3.0 x 3.0	dia. 6.60	TO-39, glass cap	185000	260000	TBD	TBD
PB25G20509	2.0 x 5.0	dia. 6.60	TO-39, glass cap	80000 ^{a1}	12000 ^{a1}	TBD	TBD
PB25G38389	3.8 x 3.8	dia. 6.60	TO-39, glass cap	115000	172000	TBD	TBD
PB25S50508M	5.0 x 5.0	dia. 9.53	TO-8, medium cap	110000	160000	TBD	TBD
PB25S60608M	6.0 x 6.0	dia. 9.53	TO-8, medium cap	90000	140000	TBD	TBD
PB25G20209X-Si	2.0 x 2.0	dia. 6.35	Si-Sandwich	280000	400000	4.2	1.4

Notes:

- ^a Measured with 500 K blackbody. Bias is 50 V/mm with 1 MOhm load series. Bandwidth of test setup is 1 Hz.
- ^{a1} 0.5 MOhm load series
- ^b Parameter not 100% tested.
- ^c without filter / window



PbS Detectors Uncooled
PB25-Series

Electro-Optical Characteristics, Specifications @ 23 °C

Part number	Peak D* ^{abc}		Peak D* ^{ac}		Dark Resistance [MΩ/square]		
	90 Hz	90 Hz	650 Hz	650 Hz	min	typ	max
	min	typ	min	typ			
PB25S10104S	2.5 E+10	3.5 E+10	8.0 E+10	1.1 E+11	0.25	0.8	2.5
PB25G10104	2.5 E+10	3.5 E+10	8.0 E+10	1.1 E+11	0.25	0.8	2.5
PB25S10109S	2.5 E+10	3.5 E+10	8.0 E+10	1.1 E+11	0.25	0.8	2.5
PB25G10109	2.5 E+10	3.5 E+10	8.0 E+10	1.1 E+11	0.25	0.8	2.5
PB25G10254	2.5 E+10 ^{a1}	3.5 E+10 ^{a1}	8.0 E+10 ^{a1}	1.1 E+11 ^{a1}	0.1	0.32	1.0
PB25G10259	2.5 E+10 ^{a1}	3.5 E+10 ^{a1}	8.0 E+10 ^{a1}	1.1 E+11 ^{a1}	0.1	0.32	1.0
PB25S20209S	2.5 E+10	3.5 E+10	8.0 E+10	1.1 E+11	0.25	0.8	2.5
PB25G20209	2.5 E+10	3.5 E+10	8.0 E+10	1.1 E+11	0.25	0.8	2.5
PB25S30309S	2.5 E+10	3.5 E+10	8.0 E+10	1.1 E+11	0.25	0.8	2.5
PB25G3030	2.5 E+10	3.5 E+10	8.0 E+10	1.1 E+11	0.25	0.8	2.5
PB25G20509	2.5 E+10 ^{a1}	3.5 E+10 ^{a1}	8.0 E+10 ^{a1}	1.1 E+11 ^{a1}	0.1	0.32	1.0
PB25G38389	2.5 E+10	3.5 E+10	8.0 E+10	1.1 E+11	0.25	0.8	2.5
PB25S50508M	2.2 E+10	3.0 E+10	7.0 E+10	9.0 E+10	0.2	0.8	2.5
PB25S60608M	2.2 E+10	3.0 E+10	7.0 E+10	9.0 E+10	0.2	0.8	2.5
PB25G20209X-Si	2.5 E+10	3.5 E+10	8.0 E+10	1.1 E+11	0.25	0.8	2.5

Notes:

- ^a Measured with 500 K blackbody. Bias is 50 V/mm with 1 MΩ load series. Bandwidth of test setup is 1 Hz.
- ^{a1} 0.5 MΩ load series
- ^b Parameter not 100% tested.
- ^c without filter / window

PbS Detectors Uncooled PB25-Series

Absolute Maximum Ratings

	Min	Max	Units
Storage temperature	- 70	+ 85 ^a	°C
Operating temperature	- 65	+ 65	°C
Soldering temperature (for 5 sec)		+ 250 (at pins only)	°C
ESD damage threshold (Human body model class 3B*)	8000		V

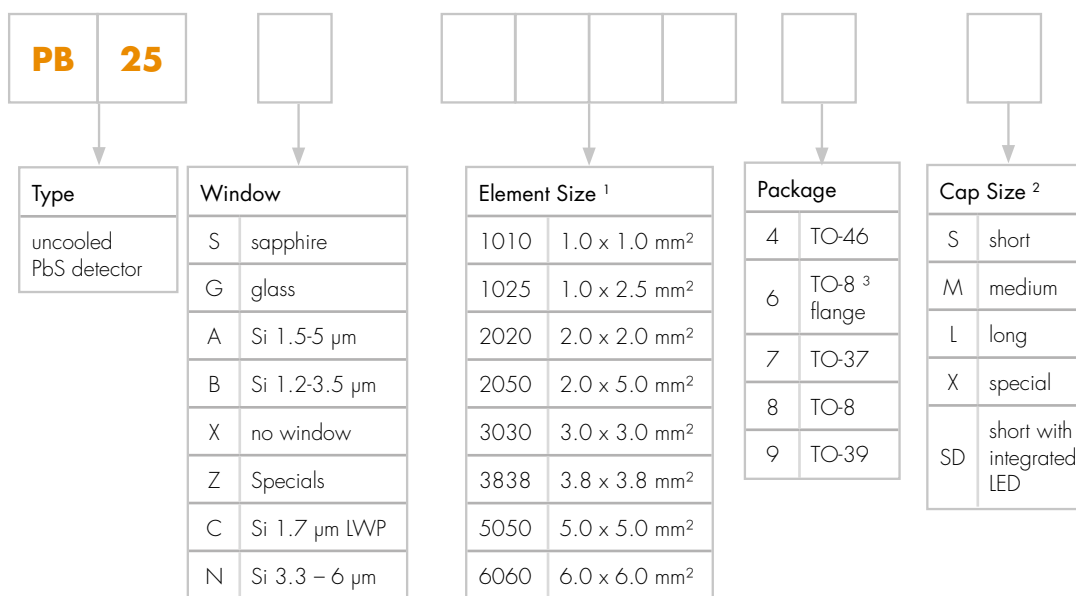
* ANSI/ESD STN5. 1-2007

^a Operation for short-term up to storage temperature may not damage the device. It could take longer time to recover to normal operation.

Handling

ESD sensitive device. High electrostatic discharge can damage or degrade the device. Use proper ESD handling precautions.

Part Number Designations



¹ for rectangular elements: space between electrodes first

² see separate list for detail

³ TO-8 with copper flange (equal TO-66)

Package Drawings

All standard packages, dimensions and tolerances are shown in our supplementary datasheet „PbS- / PbSe Detectors - Package Drawings & Cooling Specifications“.

Product Changes

LASER COMPONENTS reserves the right to make changes to the product(s) or information contained herein without notice. No liability is assumed as a result of their use or application.

Ordering Information

Products can be ordered directly from LASER COMPONENTS or its representatives. For a complete listing of representatives, visit our website a

По вопросам продаж и продукции обращайтесь:

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48

Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73

Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Саранск (8342)22-96-24
Санкт-Петербург (812)-309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35

Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

Эл. почта: sao@nt-rt.ru || Сайт: <https://laser.nt-rt.ru>