SILICON DRIFT DETECTORS

BASE - Silicon Drift Detectors for Standard Applications 2
ULTRA - Silicon Drift Detectors for High End Applications 4
LARGE - Silicon Drift Detectors for Large Solid Angle 6
ROCOCO - The Annular SDD for Best Solid Angle 8
COMPLETE - The SDD with Hermetic Sealing 10
XRS - The XRF Detector System 12
XRP - The XRF Preamplifier Module 14

PRODUCT CATALOGUE

PNDetector

Module Overview

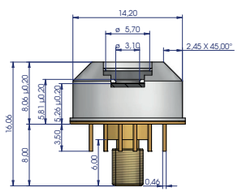
BASE - Silicon Drift Detectors for Standard Applications

Part Number	Product Name		Active Area(mm)	FET Type	Module Diameter	Peltier Cooler	Operation Temp.	On-Chip Zr Collimator	Module Window	Window Transmission @ C	@O	@Na	@Mn	FWHM @ Mn_K @ 10 kcps, t_{sh}=1 µs	FWHM @ Mn_K @ 100 kcps, t_{sh}=1 µs	FWHM @ C_K @ 10 kcps, t_{sh}=1 µs	P/B @ Mn_K
MOD-SD3-S-005r-pnW-OWM - T08	**SD3-05-128pnW**	**OM**	5	SD3	ø 15 mm	1-stage	-20°C	ø 2.2 mm	Windowless	100%	100%	100%	100%	127 eV ± 2eV	129 eV ± 2eV	49 eV ± 5eV	15 000 ± 5 000
MOD-SD3-S-005r-pnW-UTW - T08		**UTW**							Ultra Thin Window	47%	47%	69%	77%				
MOD-SD3-S-005r-pnW-PTP - T08		**PTW-TP**							PTW - TP	19%	43%	87%	100%				
MOD-SD3-S-005r-pnW-PLS - T08		**PTW-LS^{plus}**							PTW - LS^{plus}	15%	40%	86%	100%				
MOD-SD3-S-005r-pnW-PLT - T08		**PTW-LT^{plus}**							PTW - LT^{plus}	9%	37%	85%	100%				
MOD-SD3-S-010r-pnW-OWM - T08	**SD3-10-128pnW**	**OM**	10	SD3	ø 15 mm	1-stage	-20°C	ø 3.1 mm	Windowless	100%	100%	100%	100%	127 eV ± 2eV	129 eV ± 2eV	49 eV ± 5eV	15 000 ± 5 000
MOD-SD3-S-010r-pnW-UTW - T08		**UTW**							Ultra Thin Window	47%	47%	69%	77%				
MOD-SD3-S-010r-pnW-PTP - T08		**PTW-TP**							PTW - TP	19%	43%	87%	100%				
MOD-SD3-S-010r-pnW-PLS - T08		**PTW-LS^{plus}**							PTW - LS^{plus}	15%	40%	86%	100%				
MOD-SD3-S-010r-pnW-PLT - T08		**PTW-LT^{plus}**							PTW - LT^{plus}	9%	37%	85%	100%				
MOD-SDD-P-010r-pnW-OWM -T08	**SDD^{plus}-10-128pnW**	**OM**	10	SDD^{plus}	ø 15 mm	1-stage	-20°C	ø 3.2 mm	Windowless	100%	100%	100%	100%	127 eV ± 2eV	129 eV ± 2eV	49 eV ± 5eV	7 500 ± 2 500
MOD-SDD-P-010r-pnW-UTW - T08		**UTW**							Ultra Thin Window	47%	47%	69%	77%				
MOD-SDD-P-010r-pnW-PTP - T08		**PTW-TP**							PTW - TP	19%	43%	87%	100%				
MOD-SDD-P-010r-pnW-PLS - T08		**PTW-LS^{plus}**							PTW - LS^{plus}	15%	40%	86%	100%				
MOD-SDD-P-010r-pnW-PLT - T08		**PTW-LT^{plus}**							PTW - LT^{plus}	9%	37%	85%	100%				
MOD-SDD-P-010r-pnW-DBP - T08		**DB+**							8 µm Be Window	0%	0%	35%	100%			-	
MOD-SDD-P-030r-pnW-OWM-SLM	**SDD^{plus}-30-128pnW**	**OM**	30	SDD^{plus}	ø 15 mm	2-stage	-30°C	ø 5.8 mm	Windowless	100%	100%	100%	100%	127 eV ± 2eV	129 eV ± 2eV	49 eV ± 5eV	12 500 ± 2 500
MOD-SDD-P-030r-pnW-UTW-SLM		**UTW**							Ultra Thin Window	47%	47%	69%	77%				
MOD-SDD-P-030r-pnW-PTP - SLM		**PTW-TP**							PTW - TP	17%	38%	77%	89%				
MOD-SDD-P-030r-pnW-PLS - SLM		**PTW-LS^{plus}**							PTW - LS^{plus}	13%	36%	77%	89%				
MOD-SDD-P-030r-pnW-PLT - SLM		**PTW-LT^{plus}**							PTW - LT^{plus}	8%	33%	75%	89%				
MOD-SDD-P-030r-pnW-DBP - SLM		**DB+**							8 µm Be Window	0%	0%	35%	100%			-	

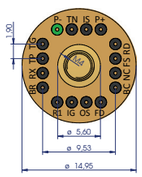
Technical Details

SD3-05-128pnW | SD3-10-128pnW

Module Geometry



Pin Assignment

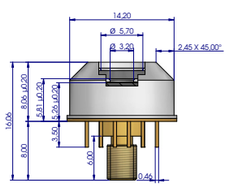


Typ. Operation Values

Temp. Diode	TP	0.4 V
Temp. Diode	TN	0 V
Temp. Diode	TG	0 V
Temp. Diode Current		2.7 µA
Inner Substrate	IS	0 V
Outer Substrate	OS	0 V
FET Drain	FD	9 V
FET Current		250 µA
Inner Guardring	IG	- 15 V
Reset Diode On	RD	6 V
Reset Diode Off	RD	- 13 V
Back Contact	BC	-90 V
Bias Ring	BR	-100 V
First Ring	R1	- 15 V
Last Ring	RX	-130 V
Max TEC Voltage	P	2.8 V
Max TEC Current		1.3 A

SDD^{plus}-10-128pnW

Module Geometry



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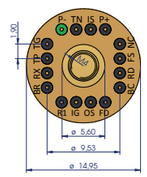

Typ. Operation Values

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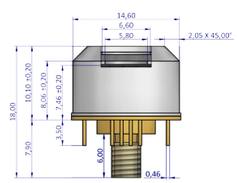
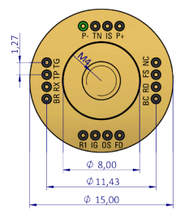
Temp. Diode	TN	0 V
Temp. Diode	TG	0 V
Temp. Diode Current		2.7 µA
Inner Substrate	IS	0 V
Outer Substrate	OS	0 V
FET Drain	FD	8.3 V
FET Current		250 µA
Inner Guardring	IG	- 17 V
Reset Diode On	RD	6 V
Reset Diode Off	RD	- 13 V
Back Contact	BC	-110 V
Bias Ring	BR	-120 V
First Ring	R1	- 15 V
Last Ring	RX	-120 V
Max TEC Voltage	P	2.8 V
Max TEC Current		1.3 A

SDD^{plus}-30-128pnW

Module Geometry



Pin Assignment



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Reset Diode On	RD	6 V
Reset Diode Off	RD	- 13 V
Back Contact	BC	-110 V
Bias Ring	BR	-120 V
First Ring	R1	- 15 V
Last Ring	RX	-130 V
Max TEC Voltage	P	3.6 V
Max TEC Current		1.4 A

Module Overview

To download the complete document please register at http://www.pndetector.de/broxDL

or write to sales@pndetector.de

Technical Details

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