

### Features

- 400 mm<sup>2</sup> PSD
- Dual-axis, duo-lateral
- High position resolution
- High NIR sensitivity

### Description

Square active area position sensing PIN photodiode with 400 mm<sup>2</sup> active area. Ceramic carrier type non-hermetic package with clear glass window.

### Application

- Laser positioning
- Precision photometry
- Instrumentation
- Medical equipment
- Pulsed light sensor

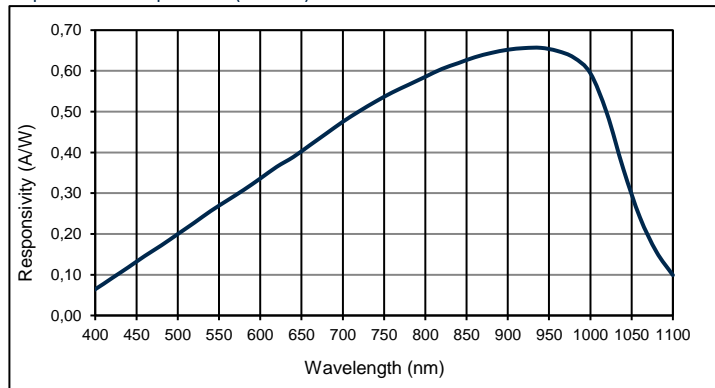
### RoHS

2011/65/EU

### Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T <sub>STG</sub>	Storage temp	-20	80	°C
T <sub>OP</sub>	Operating temp	-20	60	°C
V <sub>max</sub>	Max reverse voltage	80		V
I <sub>PEAK</sub>	Peak DC current		10	mA

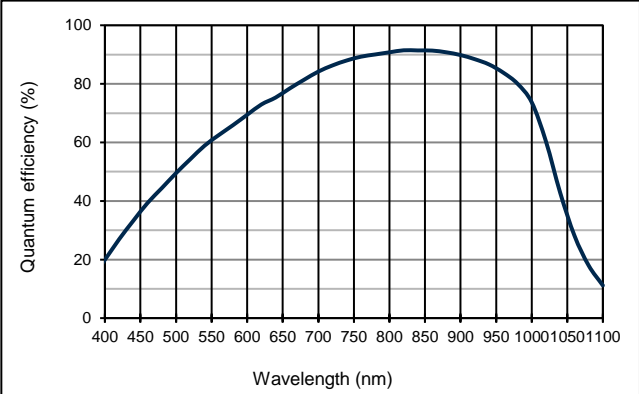
### Spectral response (23 °C)



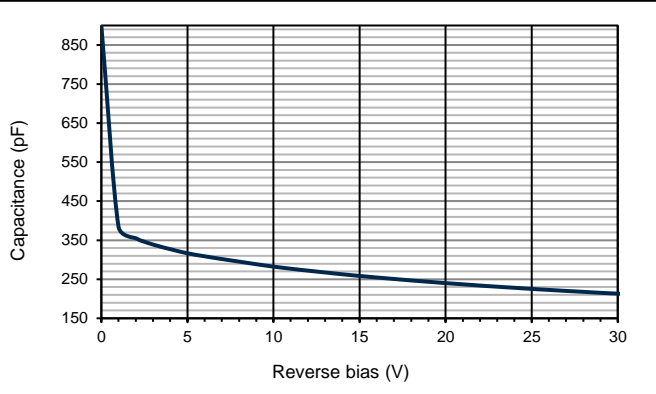
### Electro-optical characteristics @ 23 °C

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		20 x 20			mm
	Active area		400			mm <sup>2</sup>
I <sub>D</sub>	Dark current	V <sub>R</sub> = 10 V		800	2.000	nA
C	Capacitance	V <sub>R</sub> = 0 V		1.000		pF
		V <sub>R</sub> = 10 V		300		pF
	Responsivity	λ = 633 nm		0.4		A/W
		λ = 850 nm		0.62		A/W
t <sub>R</sub>	Rise time	V <sub>R</sub> = 10 V; λ = 865 nm; R <sub>L</sub> = 50 Ω		4000		ns
	Interelectrode Resistance	E = 0 lx		12		kΩ
	Noise lim. resolution	λ = 632 nm; P = 0.5 μW, spot dia. 0.5 mm		0.3		μm
	Position detection error	λ = 632 nm; P = 0.5 μW, spot dia. 0.5 mm		± 1		%
V <sub>BR</sub>	Breakdown voltage	I <sub>R</sub> = 2 μA		100		V

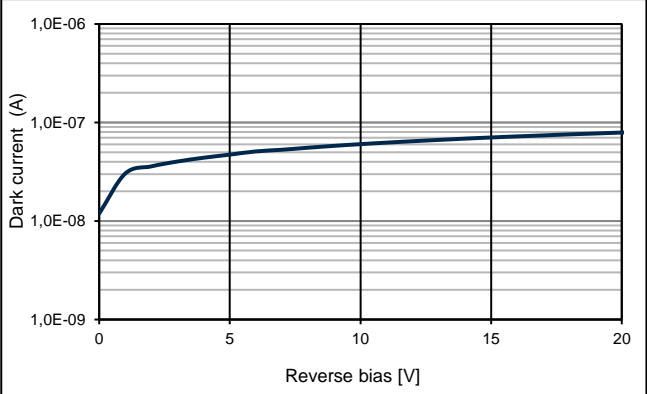
Quantum efficiency (23 °C)



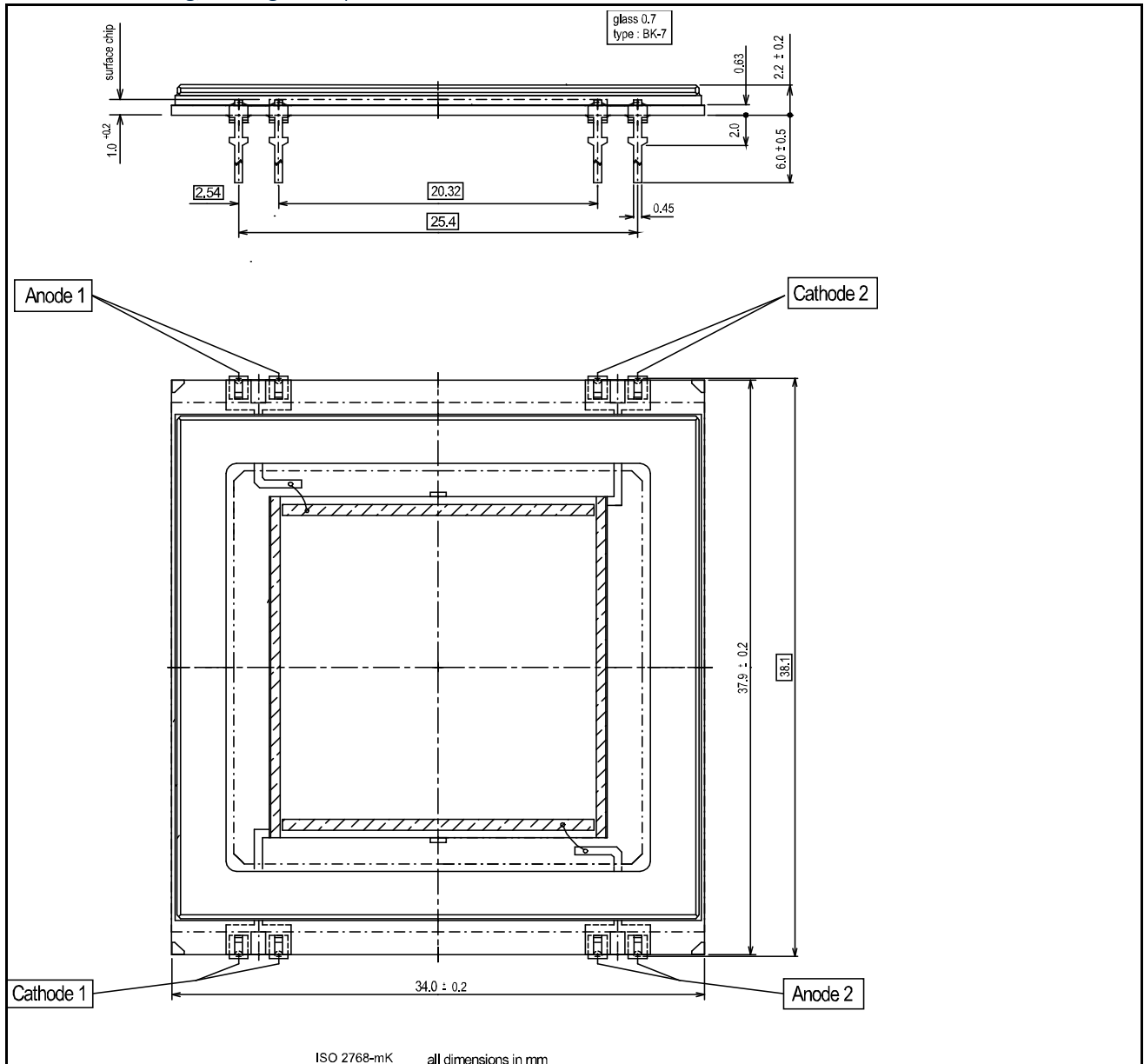
Capacitance as fct of reverse bias (23 °C)



Dark current as fct of bias (23 °C)



## Technical Drawing, Package: CERpin



### Package dimension:

Small quantities: Foam pad, boxed (12 cm x 16.5 cm)

### Handling:

Please refer to document "Instructions for handling and processing"

Disclaimer: Due to our strive for continuous improvement, specifications are subject to change within our PCN policy according to JESD46C.