

Features

- Ketek Technology SiPM
- Single photon counting
- High PDE at 420 nm
- Large stable overvoltage range
- Extremely low temperature coeff.

Description

Multipixel single photon counter with 3x3 mm square active area and 50 μm microcells. Trench separation of microcells for reduced cross talk available.

Application

- Nuclear medicine
- LIDAR
- Fluorescence spectroscopy
- Flow cytometry
- High energy physics

RoHS

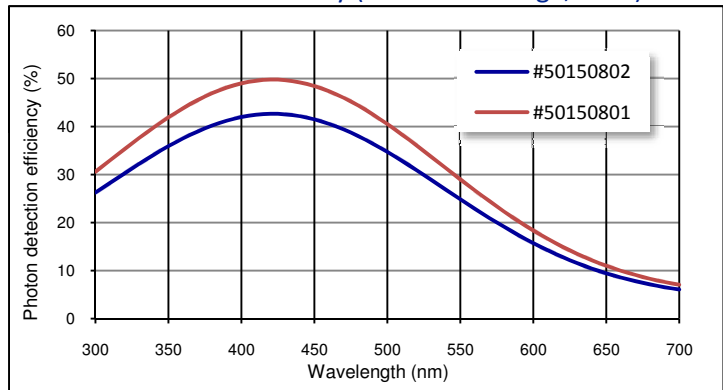
2002/95/EC



Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T _{STG}	Storage temp	-30	40	°C
T _{OP}	Operating temp	-30	40	°C
V _{max}	Max. overvoltage	30		%

Photon detection efficiency (20% overvoltage, 23°C)



Electro-optical characteristics @ 23 °C

#	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area			3.0 x 3.0		mm ²
	Micropixel size			50 x 50		μm ²
	Number of micropixels			3600		
	Geometrical efficiency	Std. type, # 50150801		70		%
		Trench type, # 50150802		63		%
PDE	Photon detection efficiency	Std. type, # 50150801; λ = 420 nm	50			%
		Trench type, # 50150802; λ = 420 nm	40			%
M	Gain	at 20% overvoltage (OV)		2 E6		
	Temperature coefficient	w.r.t breakdown voltage		22		mV/K
	Dark rate	Std. type, # 50150801; λ = 420 nm			500	kHz/mm ²
		Trench type, # 50150802; λ = 420 nm			300	
	Cross talk	Std. type, # 50150801; λ = 420 nm; 20 % OV		35		%
		Trench type, # 50150802; λ = 420 nm; 20 % OV		20		%
V _{BR}	Breakdown voltage	Std. type, # 50150801		27		V
		Trench type, # 50150802		23		V

European, International Sales:



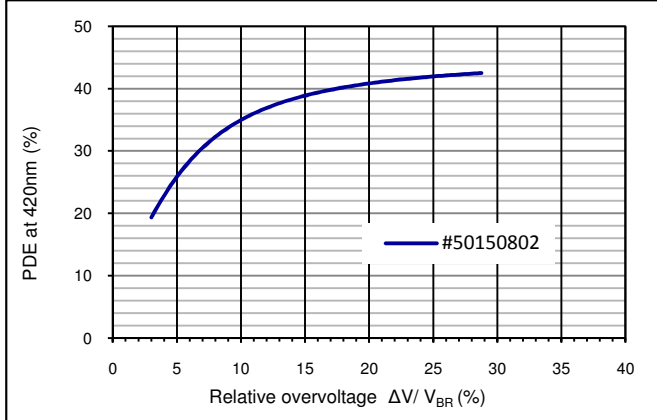
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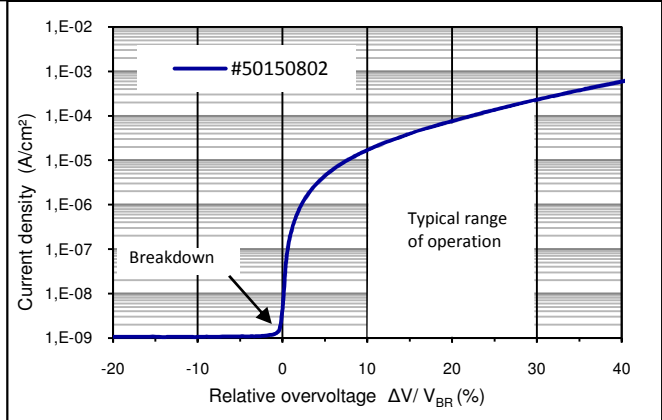


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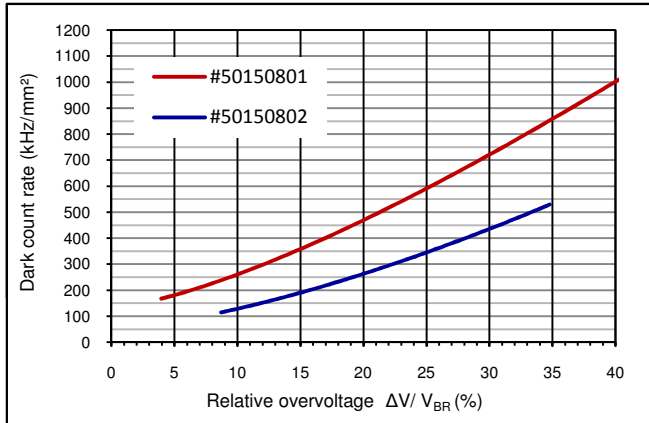
PDE as fct of overvoltage (420 nm, 23 °C)



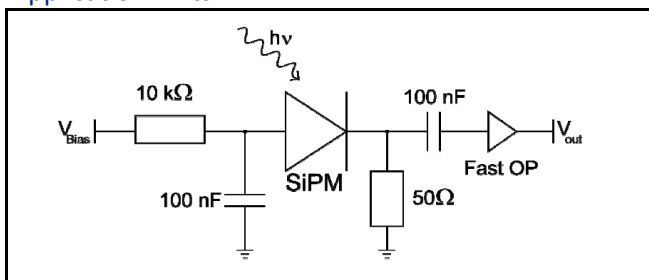
Dark current density as fct of overvoltage (23 °C)



Dark rate as fct of overvoltage (23 °C)



Application hints:



- Due to the high gain the PM3350 is easy to read out with a simple operation amplifier circuit.
- Recommended overvoltage is 20 %.
- For further questions 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.

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