

## J-Series Family



Note : Pas noté

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Fournisseur : [SENSL](#)

### J-Series Family

#### High-Density Fill Factor Silicon Photomultipliers

Sensl's J-Series sensors have been optimized for high-performance timing applications, such as ToF-PET. They feature industry-leading low dark count rates of 35kHz/mm<sup>2</sup>, in combination with exceptional breakdown voltage uniformity of ±250mV. Due to increased microcell density, PDE of >50% are achieved and extend far into the blue part of the spectrum using a high-volume, P-on-N silicon process. J-Series sensors are available in 3mm and 6mm sizes packaged in a TSV chip-scale package that is compatible with industry standard, lead-free, reflow soldering processes. J-Series sensors also feature Sensl's unique fast output.

#### Key Features

- Highest PDE
- Optimized for fast timing applications
- Ultra-low dark count
- TSV Package

### Description du produit

- ✓ Optimized for high-performance timing applications, such as ToF-PET
- ✓ >50% PDE at 420nm, facilitated by high-density fill factor microcells
- ✓ Ultra-low dark count rates of 35kHz/mm<sup>2</sup> typical
- ✓ Signal rise time and the microcell recovery time have been improved, and addition, the J-Series sensors feature Sensl's unique 'fast output' terminal
- ✓ Exceptional breakdown voltage uniformity of ±250mV over all J-Series products
- ✓ Temperature stability of 21.5mV/°C, negating the need for active voltage control
- ✓ Bias voltage of <30V
- ✓ Available in a reflow solder compatible TSV chip-scale package that has close to zero deadspace and is ferrous-metal free
- ✓ 3mm and 6mm sensor sizes
- ✓ Evaluation board with either SMA connectors or pins are available

#### Specification Summary

Please refer to the J-Series Datasheet for a complete list of features and technical details.

Parameter	Min.	Typ.	Max.	Units	Notes
Breakdown Voltage (Vbr)		24.5		V	
Recommended overvoltage (Voltage above Vbr)	+1		+5	V	
Spectral Range	250		900	nm	
Peak Wavelength		420		nm	
PDE (Photon Detection Efficiency)		51		%	35um microcell @ Vbr + 5V and 420nm
Gain (anode to cathode readout)		6x10 <sup>6</sup>			35um microcell @ Vbr + 5V
Dark Count Rate		35		kHz/mm <sup>2</sup>	@ Vbr + 2.5V
Temperature dependence of Vbr		21.5		mV/°C	

Datasheet J Series : [.pdf](#)

Manuel Utilisateur C Series : [.pdf](#)