

Product Overview

J-SERIES SIPM ARRAY: Silicon Photomultiplier Arrays, J-Series (SiPM)

For complete documentation, see the [data sheet](#).

High Fill-Factor Arrays of J-Series SiPM Sensors:

ON Semiconductor's J-Series silicon photomultiplier (SiPM) sensors have been used to create high fill-factor, scalable arrays. The TSV-packaged sensors are mounted onto PCB boards with minimal dead space. The ArrayJ products are available in a variety of formats and formed of either 3 mm, 4 mm or 6 mm pixels. The back of each ArrayJ has either one or more multi-way connectors or a BGA (ball grid array) that allow access to each pixels standard output, and in some cases, the fast output as well.

Features

- High fill-factor, scalable arrays
- Variety of formats ranging from 2×2 to 8×8
- Minimal deadspace, with fill factors of >90%
- Each array as either a multi-way connector or BGA on the reverse for access to all signals
- The pixel signals can either be read out individually for imaging applications, or summed by the user to create a large area, single-channel sensor
- The pixel-level performance is exactly as per that of the individual J-Series sensors
- Optional evaluation boards are available for easy access to signals

Applications

- Medical Imaging
- Hazard & Threat
- 3D Ranging & Sensing
- Biophotonics & Sciences
- High Energy Physics

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Type	Array Format	Active Area Dimensions	Microcell Size (µm)	Optimized Wavelength (nm)	PDE @ Max Overvoltage (%)	DCR @ Typical Overvoltage (KHz/mm ²)	Package Type
ARRAYJ-30020-16P-PCB		<u>Pb-free</u> <u>Halide free</u> non AEC-Q and PPAP	Active	Array	4 x 4	3 mm x 3 mm	20	420	38	50	ARRAYJ-300XX-16P-PCB
ARRAYJ-30020-64P-PCB		<u>Pb-free</u> <u>Halide free</u> non AEC-Q and PPAP	Active	Array	8 x 8	3 mm x 3 mm	20	420	38	50	ARRAYJ-300XX-64P-PCB
ARRAYJ-30035-16P-PCB		<u>Pb-free</u> <u>Halide free</u> non AEC-Q and PPAP	Active	Array	4 x 4	3 mm x 3 mm	35	420	50	50	ARRAYJ-300XX-16P-PCB
ARRAYJ-30035-64P-PCB		<u>Pb-free</u> <u>Halide free</u> non AEC-Q and PPAP	Active	Array	8 x 8	3 mm x 3 mm	35	420	50	50	ARRAYJ-300XX-64P-PCB
ARRAYJ-40035-64P-PCB		<u>Pb-free</u> <u>Halide free</u> non AEC-Q and PPAP	Active	Array	8 x 8	4 mm x 4 mm	35	420	50	50	ARRAYJ-400XX-64P-PCB
ARRAYJ-60035-4P-BGA		<u>Pb-free</u> <u>Halide free</u> non AEC-Q and PPAP	Active	Array	2 x 2	6 mm x 6 mm	35	420	50	50	ARRAYJ-600XX-4P
ARRAYJ-60035-4P-PCB		<u>Pb-free</u> <u>Halide free</u> non AEC-Q and PPAP	Active	Array	2 x 2	6 mm x 6 mm	35	420	50	50	ARRAYJ-600XX-4P-PCB
ARRAYJ-60035-64P-PCB		<u>Pb-free</u> <u>Halide free</u> non AEC-Q and PPAP	Active	Array	8 x 8	6 mm x 6 mm	35	420	50	50	ARRAYJ-600XX-64P-PCB

For more information please contact your local sales support at www.onsemi.com.

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