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Hamamatsu S2384 | 3.0mm NIR (400-1000nm), Si APD

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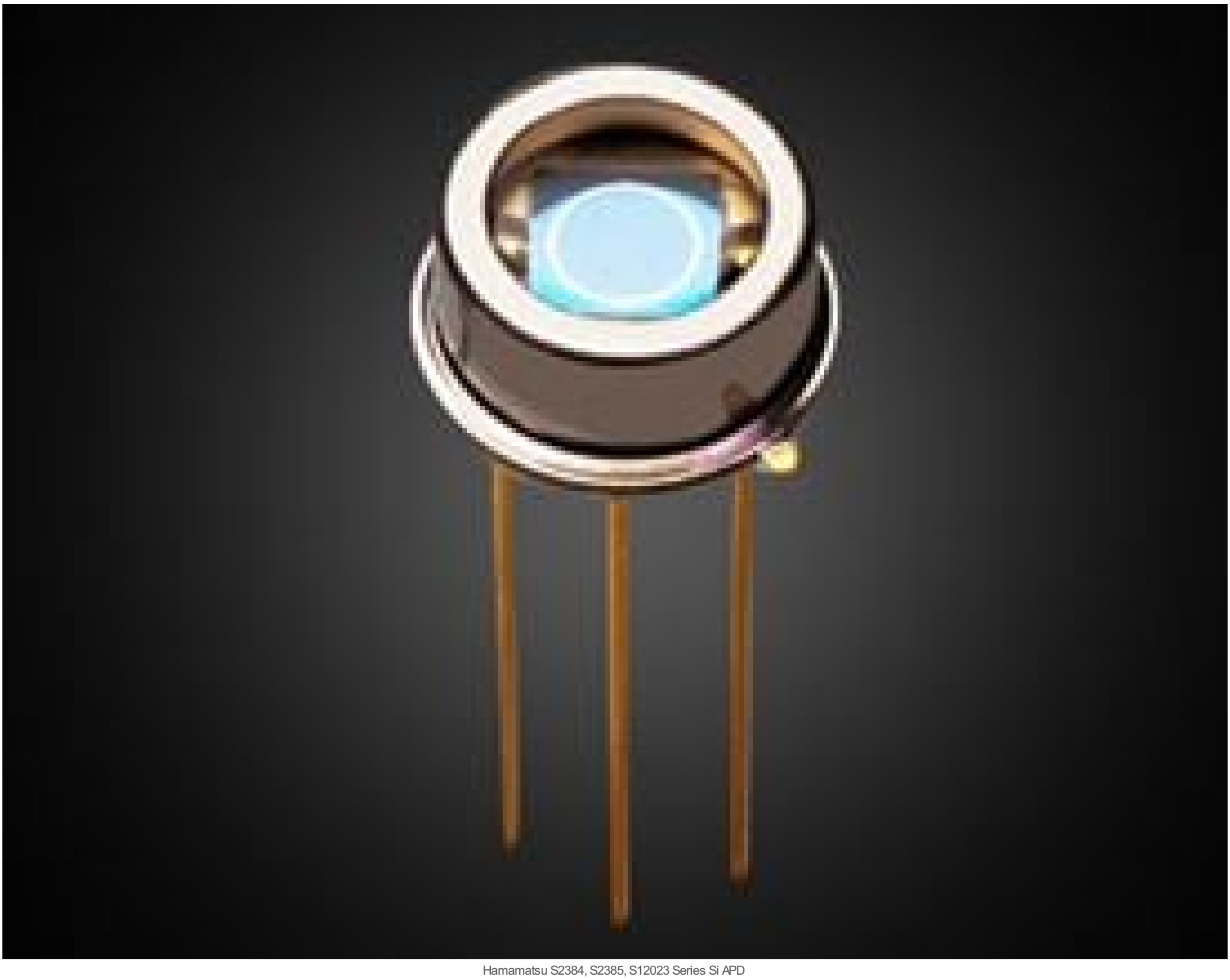

Hamamatsu S2384, S2385, S12023 Series Si APD

Stock **#58-265** **14 In Stock**

- 1 + C$742.00

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Volume Pricing	
Qty 1-4	**C$742.00** each
Qty 5-9	**C$695.80** each
Qty 10-24	**C$660.80** each
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General

Response Time (ns) R_L=50Ω:	2.90
Model Number:	S2384
Package:	TO-5
Manufacturer:	

Hamamatsu

Physical & Mechanical Properties

Active Area Diameter (mm):
3.00

Optical Properties

Spectral Response (nm):
400 - 1000

Temperature Coefficient of BDV (V/°C):
0.65

Peak Sensitivity Wavelength (nm):
800.00

Electrical

Terminal Capacitance (pF):
40.00

Breakdown Voltage BDV, I_d=100µA (V):
150/200 (Typical/Maximum)

Cut-Off Frequency (MHz):
120.00

Dark Current I_d (nA):
1.00/10.00 (Typical/Maximum)

Photosensitivity S (A/W) @ λ_p:
0.50

Quantum Efficiency QE (%) @ λ_p:
75.00

Gain (M):
60.00

Environmental & Durability Factors

Operating Temperature (°C):
-20 to 85

Storage Temperature (°C):
-55 to 125

Regulatory Compliance

RoHS 2015:
Compliant

Reach 197:
Compliant

Certificate of Conformance:
View

Product Details

- High Sensitivity and Low Noise
- High-Speed Response
- Low-Light Level Measurement

Hamamatsu Avalanche Photodiodes (APDs) are silicon photodiodes with an internal gain mechanism. As with a conventional photodiode, absorption of incident photons creates electron-hole pairs. A high reverse bias voltage creates a strong internal electric field, which accelerates the electrons through the silicon crystal lattice and produces secondary electrons by impact ionization. The resulting electron avalanche can produce gain factors up to several hundred.

Si APDs are used when light signals are too high for photomultiplier tubes and too low for conventional photodiodes. Si APDs are often used in high-speed applications since the excess noise from the avalanche process is still lower than the noise that would be generated in connecting an external amplifier to a conventional photodiode operated at high frequencies. Typical applications include low-light level measurement, spectroscopy, range finding and spatial/fiber optic communication. Both our short-wavelength type and near infrared detection types are hermetically sealed in a metal package with a clear glass window.

Photosensitivity (S) and Quantum Efficiency QE): For the NIR and UV/VIS Si APDs, λ=800nm and λ=620nm, respectively. QE and S are given for M equal to 1.
Gain (M) is given at λ=800nm and λ=650nm for the NIR and UV/VIS Si APDs respectively.
Terminal capacitance is measured at the gain specified.

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