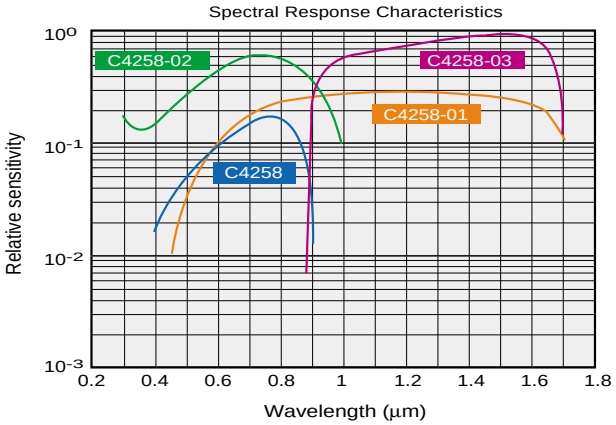
PICOSECOND PHOTODETECTOR
C4258 Series



Ideal for optical pulse monitors for mode-synchronized pulse lasers and semiconductors in the visible to near-infrared regions!



FEATURES

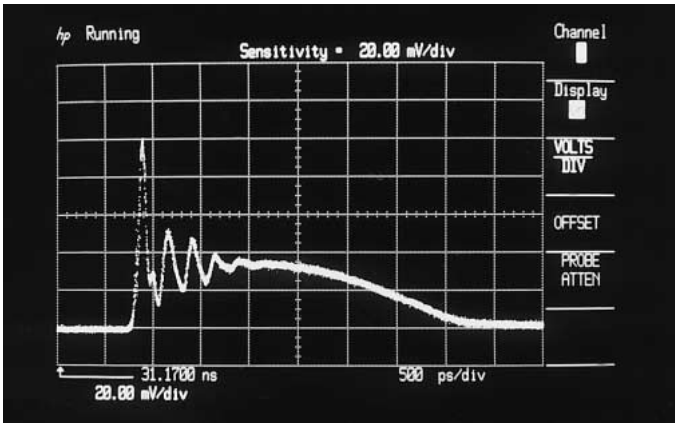
Integrated Power Supply

Fast Response of 50 ps
(C4258, C4258-01)

Wide Active Area
(C4258, C4258-01: 0.2 mm × 0.2 mm)

HAMAMATSU

MEASUREMENT EXAMPLES



• Example showing measurement of relaxation oscillations from a semiconductor laser in the 0.8 μm band

The C4258 series of picosecond photodetectors consists of photodetectors featuring a light detector, a high-frequency circuit,and a battery integrated in a single unit, as well as fast response. Optical phenomena in the picosecond region can be measured simplyby irradiating the unit with an optical beam and connecting the output to an external oscilloscope.

A high-speed MSM photodiode is used as the detector, enabling a fast rise time , a large active area. For this reason, the C4258 is ideal for pulse waveform observation of picosecond lasers such as Ti: sapphire / YAG lasers, and semiconductor lasers for DVDs and optical communications. In addition, by combining it with a short-pulselight source, the C4258 can be used in applications such as measuring the transmission characteristics of optical fibers.

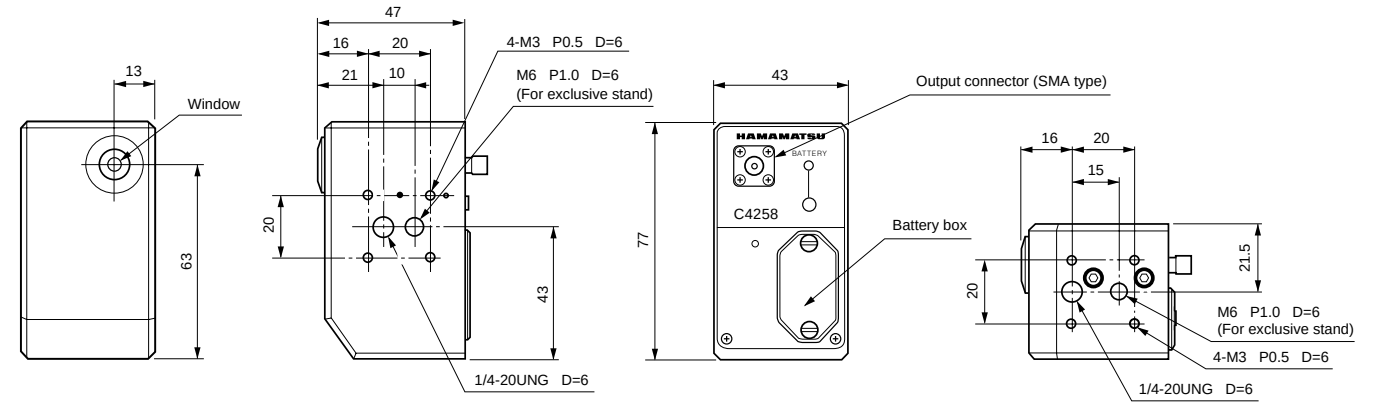
Four models are available. This lets the user select which ever model is optimum for the wavelength of the pulse being measured.

SPECIFICATIONS

Type mumber	C4258	C4258-01	C4258-02	C4258-03
Spectral response	0.4 μm to 0.87 μm	0.6 μm to 1.65 μm	0.32 μm to 1.0 μm	0.98 μm to 1.65 μm
Sensitivity	1 mV/mW (at 0.6 μm)	3 mV/mW (at 1.55 μm)	5 mV/mW (at 0.85 μm)	10 mV/mW (at 1.55 μm)
Active area	0.2 mm × 0.2 mm	0.2 mm × 0.2 mm	ϕ 0.4 mm	ϕ 0.08 mm
Rise time	50 ps	50 ps	< 400 ps	< 400 ps
Maximun input plue width	< 5 ns	< 5 ns	-	-
Low-frequency cutoff	100 kHz			
Power source	Internal battery (W-10)			
Operating ambient temperature	0 to +40°C			
Storage ambient temperature	– 10 to +50°C			
Operating/storage ambient humidity	70% max. (with no condensation)			

DIMENSIONAL OUTLINES (Unit: mm)

Weight: Approx. 300 g



TÜV CERT ISO 9001 Certificate: 09 105 79045

★ **Product and software package names noted in this documentation are trademarks or registered trademarks of their respective manufacturers.**

- Subject to local technical requirements and regulations, availability of products included in this promotional material may vary. Please consult with our sales office.
- Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications and external appearance are subject to change without notice.

© 2002 Hamamatsu Photonics K.K.

HAMAMATSU

Homepage Address http://www.hamamatsu.com

HAMAMATSU PHOTONICS K.K., Systems Division
812 Joko-cho, Hamamatsu City, 431-3196, Japan, Telephone: (81)53-431-0124, Fax: (81)53-435-1574, E-mail:export@sys.hpk.co.jp

U.S.A. and Canada: Hamamatsu Photonic Systems: 360 Foothill Road, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1)908-231-1116, Fax: (1)908-231-0852, E-mail: usa@hamamatsu.com
Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-2658, E-mail: info@hamamatsu.de
France: Hamamatsu Photonics France S.A.R.L.: 8, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 00, Fax: (33)1 69 53 71 10, E-mail: infos@hamamatsu.fr
United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire, AL7 1BW, U.K., Telephone: (44) 1707-294888, Fax: (44) 1707-325777, E-mail: info@hamamatsu.co.uk
North Europe: Hamamatsu Photonics Norden AB: Smidesvägen 12, SE-171-41 Solna, Sweden, Telephone: (46)8-509-031-00, Fax: (46)8-509-031-01, E-mail: info@hamamatsu.se
Italy: Hamamatsu Photonics Italia S.R.L.: Strada della Mois, 1/E 20020 Arese (Milano), Italy, Telephone: (39)02-935 81 733, Fax: (39)02-935 81 741, E-mail: info@hamamatsu.it

Cat. No. SSCS1007E06
AUG/2002 HPK
Created in Japan (PDF)