

### FEATURES

- Good Anode Uniformity  
1:1.1 Typ. (at -1000 V and peak wavelength)
- Low Cross-talk  
0.1 % Typ. (each channel)  
Black slit faceplate used
- High Cathode Sensitivity  
Luminous 250  $\mu\text{A/lm}$  Typ. (-01 Type)  
Luminous 500  $\mu\text{A/lm}$  Typ. (-20 Type)
- Anode Structure  
2.8 mm Channel Pitch  
2.0 mm  $\times$  2.5 mm  $\times$  8 Anodes

### APPLICATIONS

- Biomedical Fluorescence Detection
- Laser Scanning Detection
- Spectroscopy
- Environmental Monitoring



Figure 1: Typical Spectral Response

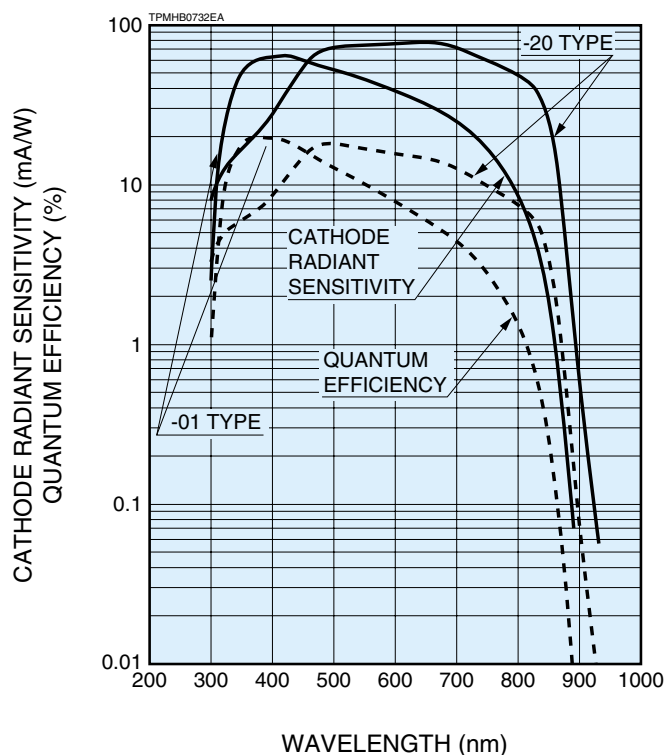
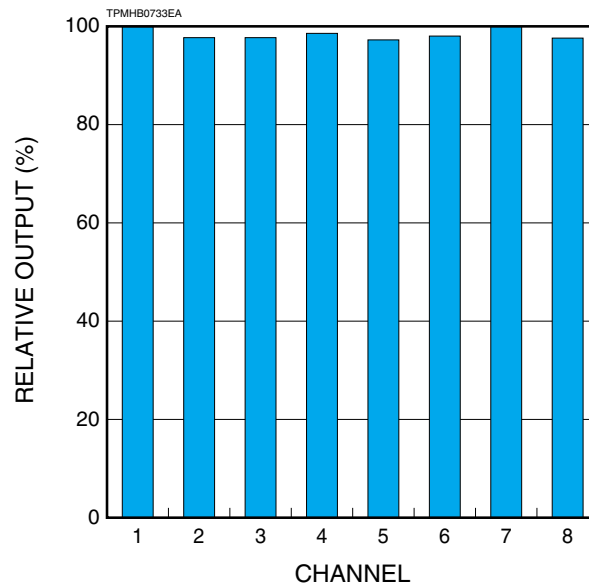


Figure 2: Anode Uniformity (Example)



Supply Voltage: -1000 V  
Wavelength: peak wavelength

# 8 CHANNEL LINEAR ARRAY MULTIANODE PMT ASSEMBLY H9530 SERIES

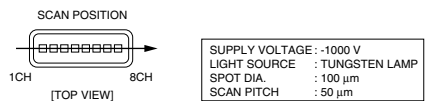
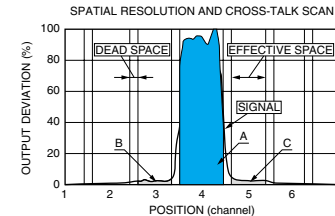
## SPECIFICATIONS

| Parameter                                 |                                          | Description / Value      |            | Unit  |
|-------------------------------------------|------------------------------------------|--------------------------|------------|-------|
|                                           |                                          | H9530-01                 | H9530-20   |       |
| Spectral Response                         | Range                                    | 300 to 880               | 300 to 920 | nm    |
|                                           | Peak Wavelength                          | 420                      | 630        | nm    |
| Photocathode                              | Material                                 | Multialkali              |            | —     |
|                                           | Effective Area per Channel               | 2.0 × 2.5                |            | mm    |
| Channel Pitch                             |                                          | 2.8                      |            | mm    |
| Window Material                           | Clear Parts                              | Borosilicate glass       |            | —     |
|                                           | Slit Parts                               | Black Borosilicate glass |            | —     |
| Dynode                                    | Structure                                | Metal Channel            |            | —     |
|                                           | Number of Stages                         | 12                       |            | —     |
| Insulation Cover Material                 |                                          | P.O.M.                   |            | —     |
| Maximum Supply Voltage                    |                                          | -1200                    |            | V     |
| Supply Voltage                            |                                          | -1000                    |            | V     |
| Cathode Characteristics (Typ.)            | Luminous (2856 K)                        | 250                      | 500        | μA/lm |
|                                           | Red / White Ratio R-68                   | 0.3                      | 0.45       | —     |
| Anode Characteristics (Typ.)              | Luminous (2856 K)                        | 750                      | 1500       | A/lm  |
|                                           | Dark Current per Channel (After 30 min.) | 0.5                      | 1          | nA    |
|                                           | Gain (at 1000 V)                         | 3 × 10 <sup>6</sup>      |            | —     |
| Cross-talk (Typ.)                         |                                          | 0.1 <sup>Ⓐ</sup>         |            | %     |
| Anode Uniformity (Typ.)                   |                                          | 1: 1.1 <sup>Ⓑ</sup>      |            | —     |
| Maximum Average Anode Current per Channel |                                          | 10 <sup>Ⓒ</sup>          |            | μA    |

### NOTE

Ⓐ The ratio of signal between a channel and an average of adjacent two channels, when the incident light is given to the center channel through 2.0 mm × 2.5 mm aperture. Cross-talk is measured with the analog mode. Cross-talk: (Area B + Area C) / 2 / Area A × 100

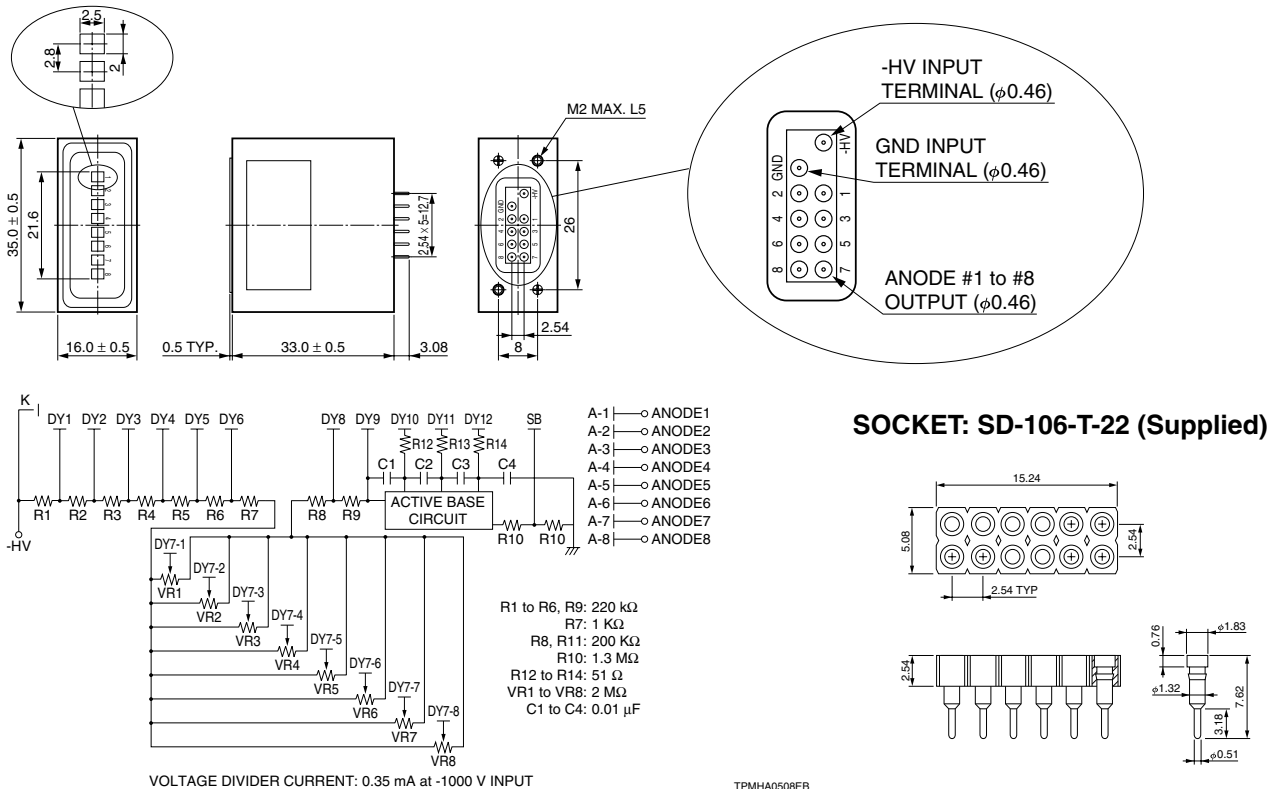
### Cross-talk (Example)



Ⓑ Uniformity is measured on each channel with -1000 V at peak wavelength.

Ⓒ at -1000 V

Figure 3: Dimensional Outline (Unit: mm)



### SOCKET: SD-106-T-22 (Supplied)

# HAMAMATSU

WEB SITE <http://www.hamamatsu.com>

HAMAMATSU PHOTONICS K.K., Electron Tube Division

314-5, Shimokanzo, Toyooka-village, Iwata-gun, Shizuoka-ken, 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, P. O. Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218 E-mail: [usa@hamamatsu.com](mailto: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](mailto: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](mailto:infos@hamamatsu.fr)

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road Welwyn Garden City Hertfordshire AL7 1BW, United Kingdom, Telephone: 44-(0)1707-294888, Fax: 44-(0)1707-325777 E-mail: [info@hamamatsu.co.uk](mailto: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](mailto:info@hamamatsu.se)

Italy: Hamamatsu Photonics Italia: S.R.L.: Strada della Moia, 1/E, 20020 Arese, (Milano), Italy, Telephone: (39)02-935 81 733, Fax: (39)02-935 81 741 E-mail: [info@hamamatsu.it](mailto:info@hamamatsu.it)

TPMH1289E03  
OCT. 2004 IP