

**For electron beam detection,
High speed and long life phosphor**

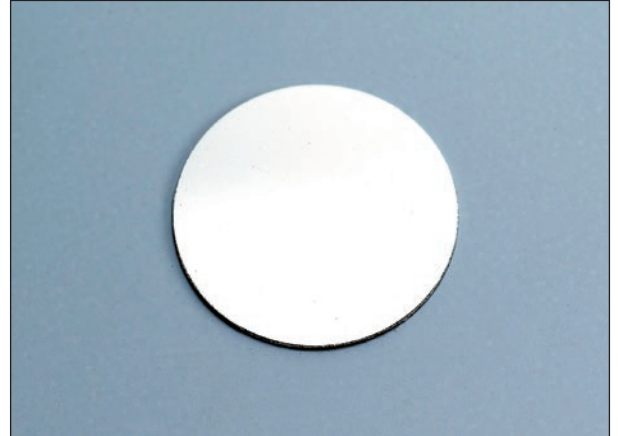
FEATURES

- High speed decay time
- Long life
- High brightness efficiency

APPLICATIONS

- Semiconductor inspection instruments
- SEM (Scanning Electron Microscopy)
- Mass spectrometry *
- General electron detection

*This is used in combination with a conversion dynode or MCP when detecting ions.



SPECIFICATIONS

GENERAL

Parameter	J16843-09D	J13550-09D	J12782-09D	Unit
Effective diameter		8.6		mm
Recommended detection energy range (Electron beam) ①	6 to 20	6 to 15		keV
Decay time (90 % to 10 %) Typ.	2.8	3.5	12	ns
Peak emission wavelength range		390 to 440		nm
Operating ambient temperature		+5 to +45		°C
Storage temperature		-10 to +50		°C
Storage humidity ②		Below 70		%

① Lower detection energy range is available upon request.

② No condensation

Figure 1: Decay time characteristics

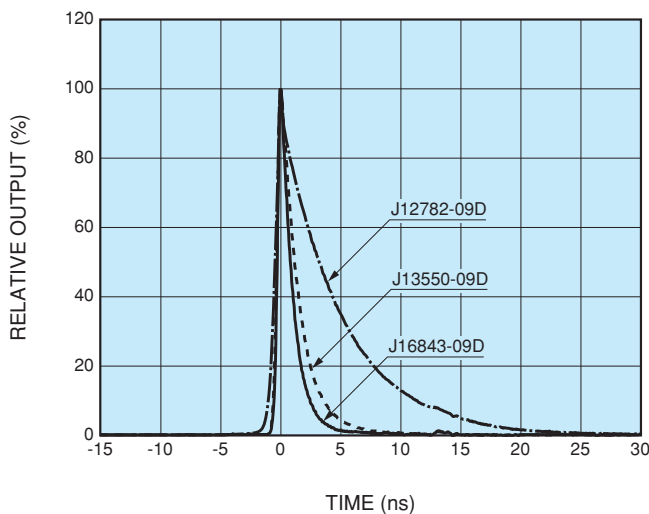
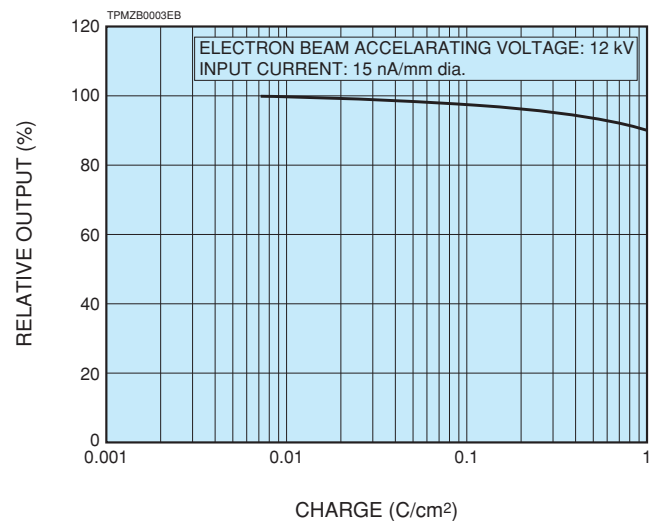


Figure 2: Life characteristics



FAST DECAY PHOSPHOR

J16843-09D/J13550-09D/J12782-09D

Figure 3: Spectral emission characteristics

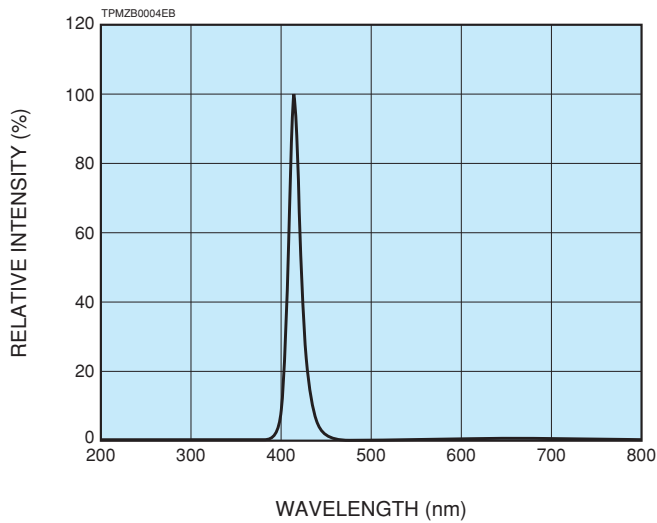


Figure 4: Relative light emission intensity (measurement data example)

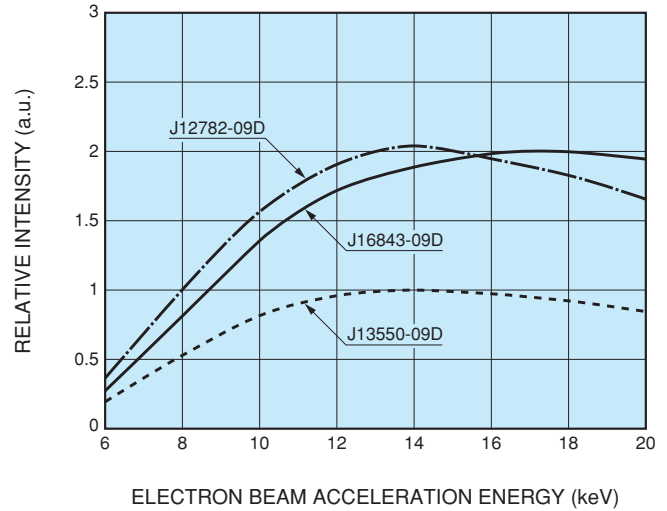
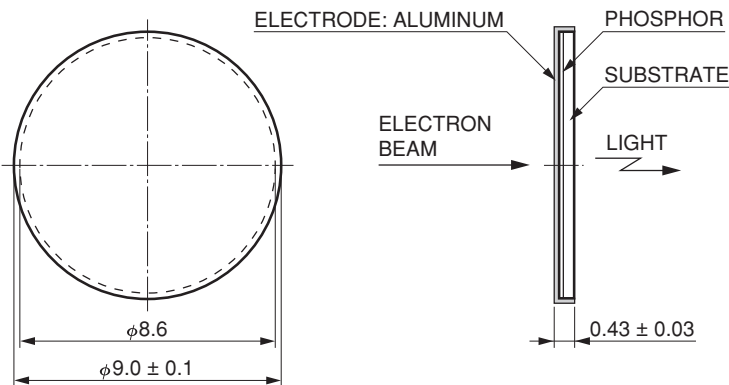


Figure 5: Dimensional outline (Unit: mm)



TPMZA0002EC

HAMAMATSU PHOTONICS K.K. www.hamamatsu.com

Electron Tube Division

314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: HAMAMATSU CORPORATION: 360 Foothill Road, Bridgewater, NJ 08807, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218 E-mail: usa@hamamatsu.com

Germany: HAMAMATSU PHOTONICS DEUTSCHLAND GMBH.: Arzbergerstr. 10, 82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-265-8 E-mail: info@hamamatsu.de

France: HAMAMATSU PHOTONICS FRANCE S.A.R.L.: 19 Rue du Saulie Trappu, 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, UK, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: info@hamamatsu.co.uk

North Europe: HAMAMATSU PHOTONICS NORDEN AB: Torshamsgatan 35, 16440 Kista, 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 Moia, 1 int. 6 20044 Arese (Milano), Italy, Telephone: (39)02-93 58 17 33, Fax: (39)02-93 58 17 41 E-mail: info@hamamatsu.it

China: HAMAMATSU PHOTONICS (CHINA) CO., LTD.: 1201, Tower B, Jiaming Center, 27 Dongsanhuan Bellu, Chaoyang District, 100020 Beijing, P.R. China, Telephone: (86)10-6586-6006, Fax: (86)10-6586-2866 E-mail: hpc@hamamatsu.com.cn

Taiwan: HAMAMATSU PHOTONICS TAIWAN CO., LTD.: 8F-3, No.158, Section 2, Gongdao 5th Road, East District, Hsinchu, 300, Taiwan R.O.C. Telephone: (866)3-659-0080, Fax: (866)3-659-0081 E-mail: info@hamamatsu.com.tw

TPMZ1021E03
FEB 2023 IP