

**13 mm (1/2 inch) diameter, 9-stage, High QE multialkali photocathode
Side-on type, 185 nm to 900 nm spectral response**

SPECIFICATIONS

GENERAL

Parameter	Description/Value	Unit
Spectral response	185 to 900	nm
Wavelength of maximum response	480	nm
Photocathode	Material	Multialkali
	Minimum effective area	4 × 13
Window material	UV glass	—
Dynode	Structure	Circular-cage
	Number of stages	9
Weight	Approx. 5.4	g
Operating ambient temperature	-30 to +50	°C
Storage temperature	-30 to +50	°C
Suitable socket	E678-11U	—



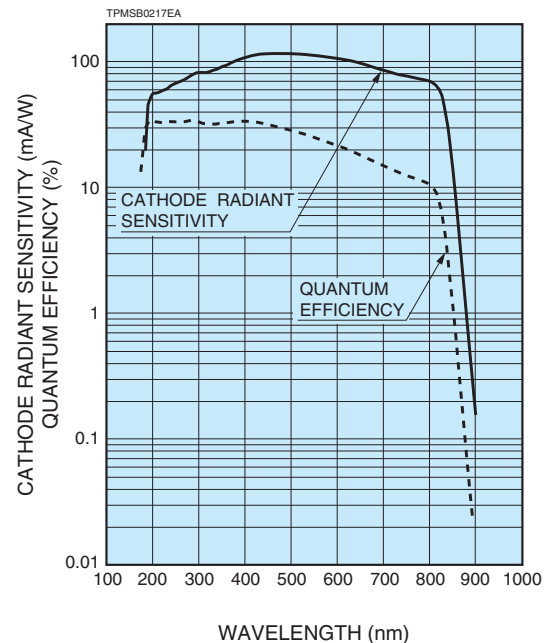
MAXIMUM RATINGS (Absolute maximum values)

Parameter	Value	Unit	
Supply voltage	Between anode and cathode	1250	V
	Between anode and last dynode	150	V
Average anode current	0.01	mA	

CHARACTERISTICS (at 25 °C)

Parameter	Min.	Typ.	Max.	Unit	
Cathode sensitivity	Luminous (2856 K)	700	750	—	μA/lm
	Radiant at 480 nm	—	116	—	mA/W
	Quantum efficiency at 780 nm	—	11.6	—	%
	Red / White ratio	—	0.45	—	—
	Blue sensitivity Index (CS 5-58)	—	17.0	—	—
Anode sensitivity	Luminous (2856 K)	400	1800	—	A/lm
	Radiant at 480 nm	—	2.8 × 10 ⁵	—	A/W
Gain	—	2.4 × 10 ⁶	—	—	
Anode dark current (After 30 min storage in darkness)	—	4	10	nA	
Time response	Anode pulse rise time	—	1.4	—	ns
	Electron transit time	—	15	—	ns

Figure 1: Typical spectral response



VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	P
Ratio	1	1	1	1	1	1	1	1	1	1	1

Supply voltage: 1000 V, K: Cathode, Dy: Dynode, P: Anode

PHOTOMULTIPLIER TUBE R14657

Figure 2: Typical gain characteristics

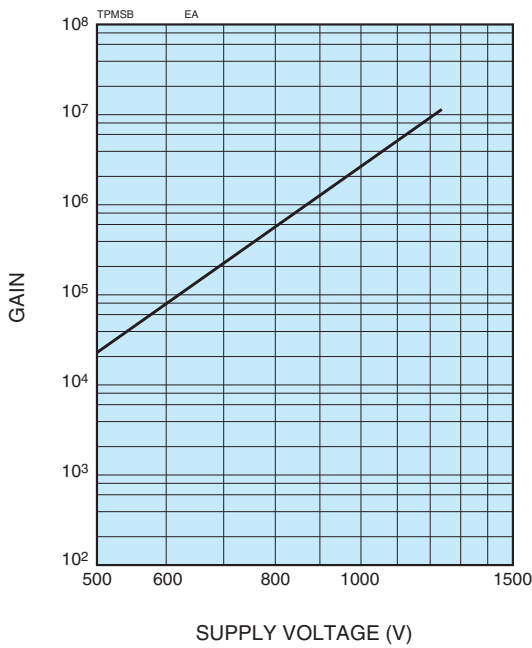
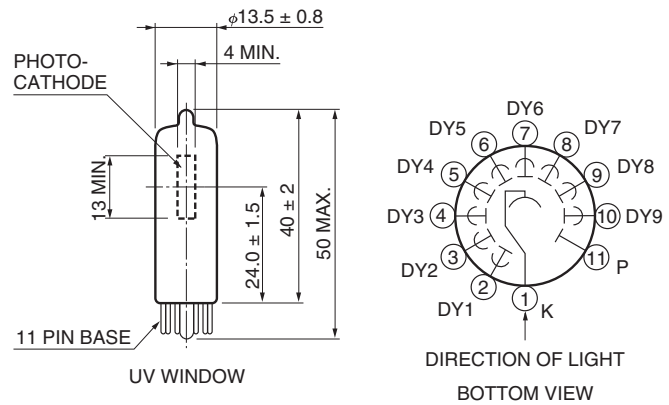


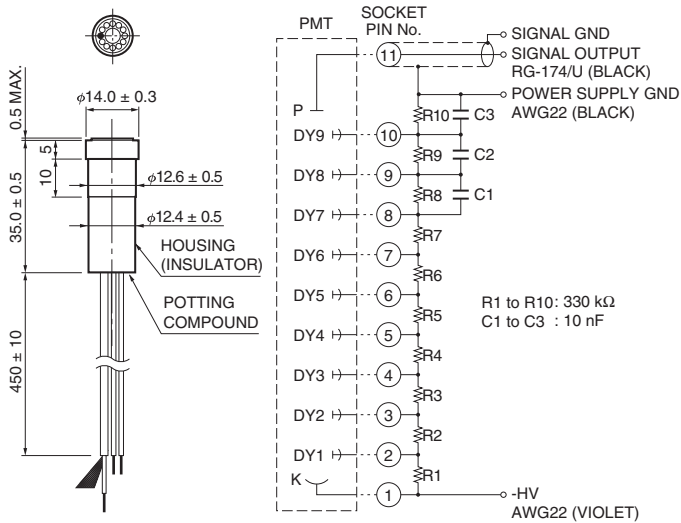
Figure 3: Dimensional outline and basing diagram (Unit: mm)



TPMSA0034EE

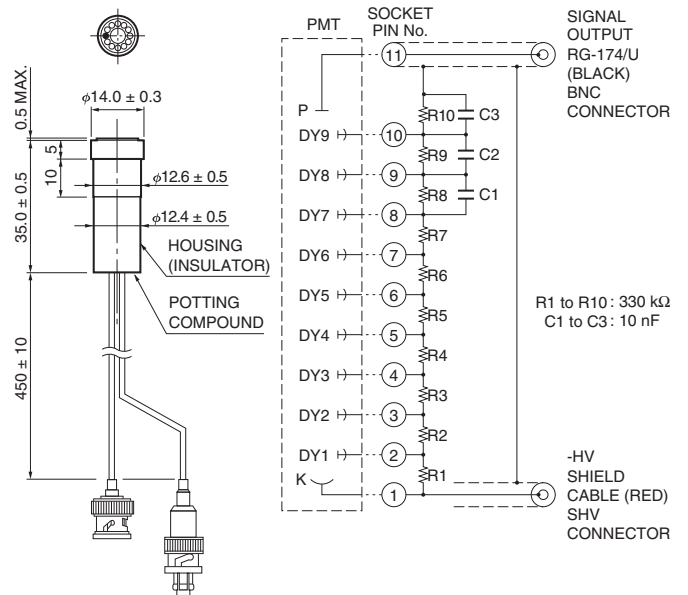
Figure 4: Accessories (Unit: mm) Sold separately

D type socket assembly E850-13



TACCA0096EC

D type socket assembly E850-22



TACCA0240EB

Warning—Personal Safety Hazards

Electrical Shock—Operating voltages applied to this device present a shock hazard.

HAMAMATSU PHOTONICS K.K. www.hamamatsu.com

HAMAMATSU PHOTONICS K.K., 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, D-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 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, UK, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: info@hamamatsu.co.uk

North Europe: Hamamatsu Photonics Norden AB: Torshamnsgatan 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 inf. 6, 20020 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 Beilu, 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, Section2, Gongdao 5th Road, East District, Hsinchu, 300, Taiwan R.O.C. Telephone: (886)3-659-0080, Fax: (886)3-659-0081 E-mail: info@hamamatsu.com.tw

TPMS1104E01

FEB. 2019 IP