

**300 nm to 850 nm Response (S-20)  
51 mm (2 Inch) Diameter, 10-stage, Head-on Type**

**GENERAL**

Parameter		Description / Value	Unit
Spectral Response		300 to 850	nm
Wavelength of Maximum Response		420	nm
Photocathode	Material	Multialkali	—
	Minimum Effective Area	φ46	mm
Window Material		Borosilicate glass	—
Dynode	Structure	Box and Grid	—
	Number of Stages	10	—
Base		14-pin base JEDEC No. B14-38	—
Operating Ambient Temperature		-30 to +50	°C
Storage Temperature		-30 to +50	°C
Suitable Socket		E678-14W (Sold Separately)	—

**MAXIMUM RATINGS (Absolute Maximum Values)**

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1500	V
	Between Anode and Last Dynode	250	V
Average Anode Current		0.3	mA

**CHARACTERISTICS (at 25 °C)**

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856 K)	100	150	—	μA/lm
	Radiant at 420 nm	—	64	—	mA/W
	Red/White Ratio (R-68)	—	0.2	—	—
Anode Sensitivity	Luminous (2856 K)	20	100	—	A/lm
	Radiant at 420 nm	—	4.3 × 10 <sup>4</sup>	—	A/W
Gain		—	6.7 × 10 <sup>5</sup>	—	—
Anode Dark Current (after 30 minutes storage in darkness)		—	10	30	nA
Time Response	Anode Pulse Rise Time	—	9.0	—	ns
	Electron Transit Time	—	70	—	ns

**NOTE:** Anode characteristics are measured with the voltage distribution ratio shown below.

**VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE**

Electrodes	K	G	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	P
Ratio	1	1	1	1	1	1	1	1	1	1	1	1	1

Supply Voltage: 1000 V, K: Cathode, G: Grid, Dy: Dynode, P: Anode

# PHOTOMULTIPLIER TUBE R550

Figure 1: Typical Spectral Response

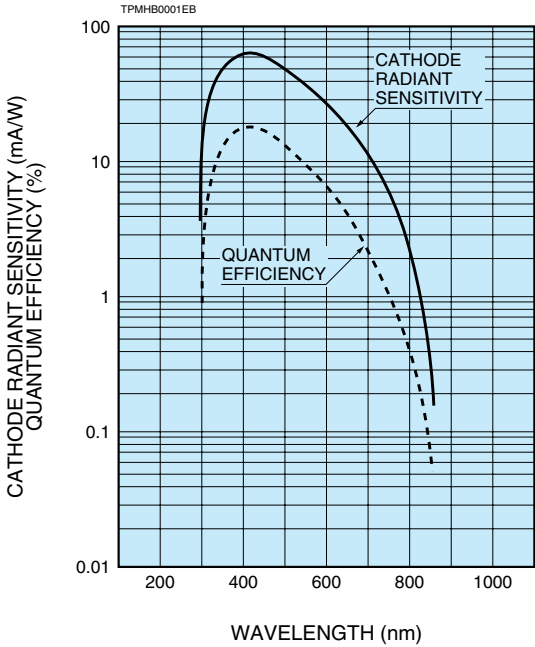


Figure 2: Typical Gain Characteristics

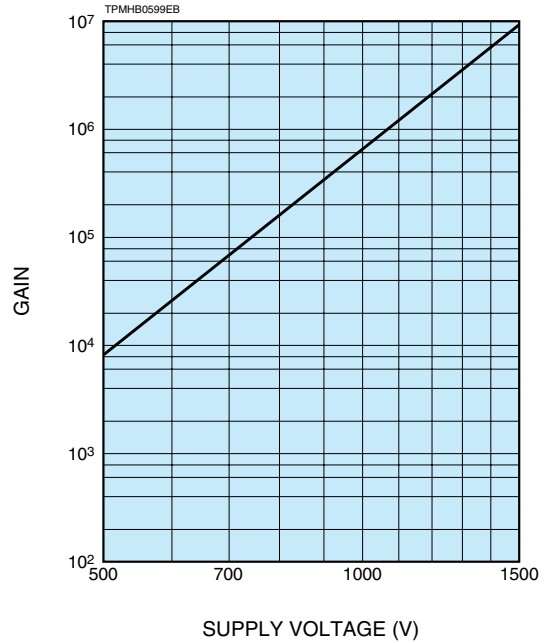
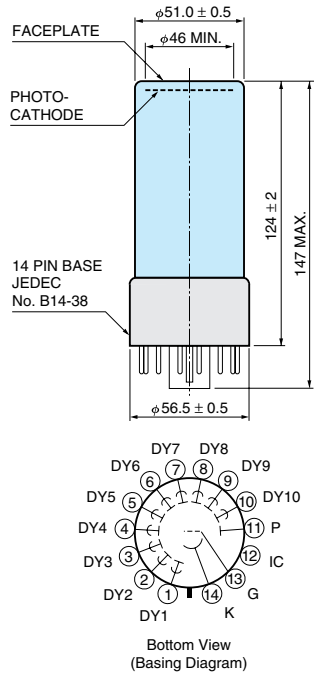


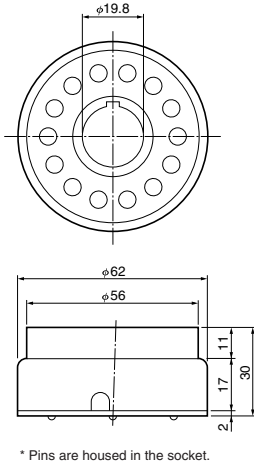
Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)



TPMHA0210EB

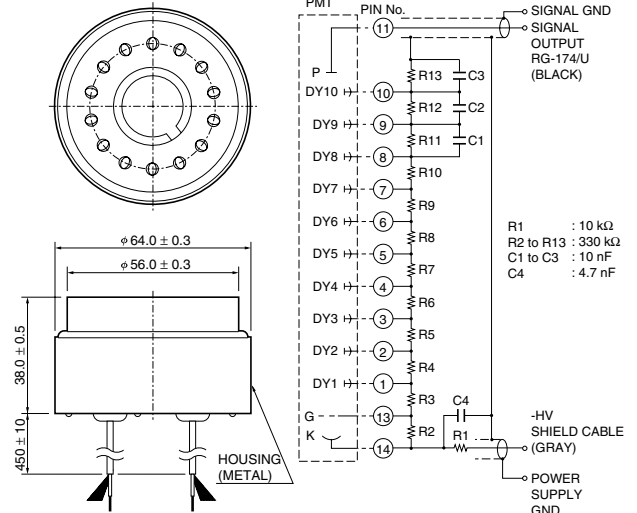
Figure 4: Accessories (Unit: mm)

●Socket E678-14W  
(Sold separately)



TACCA0200EA

●D-type Socket Assembly E1198-22  
(Sold separately)



TACCA0168EB

\* HAMAMATSU also provides high voltage power supply modules C11152 series.

**HAMAMATSU PHOTONICS K.K.** [www.hamamatsu.com](http://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, 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.: 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](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)1707-294888, Fax: (44)1707-325777 E-mail: [info@hamamatsu.co.uk](mailto:info@hamamatsu.co.uk)

**North Europe:** Hamamatsu Photonics Norden AB: Torshamnsgatan 35 SE-164 40 Kista, 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 int. 6, 20020 Arese (Milano), Italy, Telephone: (39)02-93581733, Fax: (39)02-93581741 E-mail: [info@hamamatsu.it](mailto:info@hamamatsu.it)

**China:** Hamamatsu Photonics (China) Co., Ltd.: B1201 Jiaming Center, No.27 Dongsanhuan Beilu, Chaoyang District, Beijing 100020, China, Telephone: (86)10-6586-8006, Fax: (86)10-6586-2866 E-mail: [hpc@hamamatsu.com.cn](mailto:hpc@hamamatsu.com.cn)

TPMH1247E06

AUG. 2014 IP