

HAMAMATSU**PHOTOMULTIPLIER TUBE
R7459****28mm(1-1/8 Inch) Diameter, 11-stage, Bialkali Photocathode,
Head-On Type, UV Sensitive, Low Dark Current, High Stability****GENERAL**

Parameter		Description/Value	Unit
Spectral Response		160 to 650	nm
Wavelength of Maximum Response		420	nm
Photocathode	Material	Bialkali	—
	Minimum Effective Area	25	mm dia.
Window Material		Synthetic silica glass	—
Dynode	Structure	Box and Line	—
	Number of Stages	11	—
Base		14-pin glass base	—
Suitable Socket		E678-14C (supplied)	—

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1500	V dc
	Between Anode and Last Dynode	250	V dc
Average Anode Current		0.1	mA
Ambient Temperature		-80 to +50	°C

CHARACTERISTICS (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856K)	60	95	—	μ A/lm
	Radiant at 420 nm	—	88	—	mA/W
	Blue (CS-5-58 filter)	—	11	—	μ A/lm-b
Anode Sensitivity	Luminous (2856K)	50	200	—	A/lm
	Radiant at 420 nm	—	1.8×10^5	—	A/W
Gain		—	2.1×10^6	—	—
Anode Dark Current (after 30 min. storage in darkness)		—	2	10	nA
Time Response	Anode Pulse Rise Time	—	4	—	ns
	Electron Transit Time	—	30	—	ns
	Transit Time Spread (FWHM)	—	3	—	ns

NOTE: Anode characteristics are measured with the voltage distribution ratio shown below.**VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE**

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	Dy11	P
Ratio	1	1	1	1	1	1	1	1	1	1	1	1	1

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



PHOTOMULTIPLIER TUBE R7459

Figure 1: Typical Spectral Response

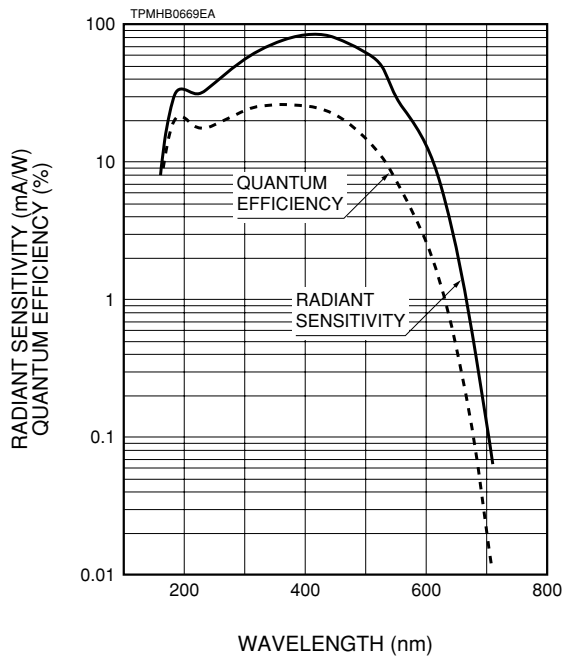


Figure 2: Typical Gain

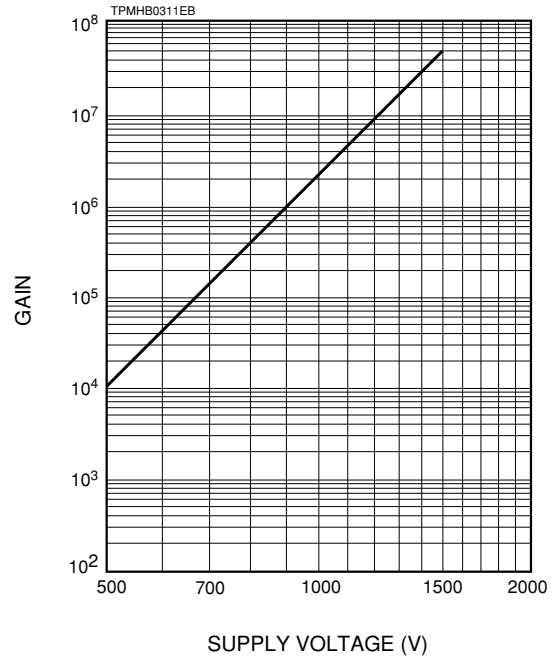
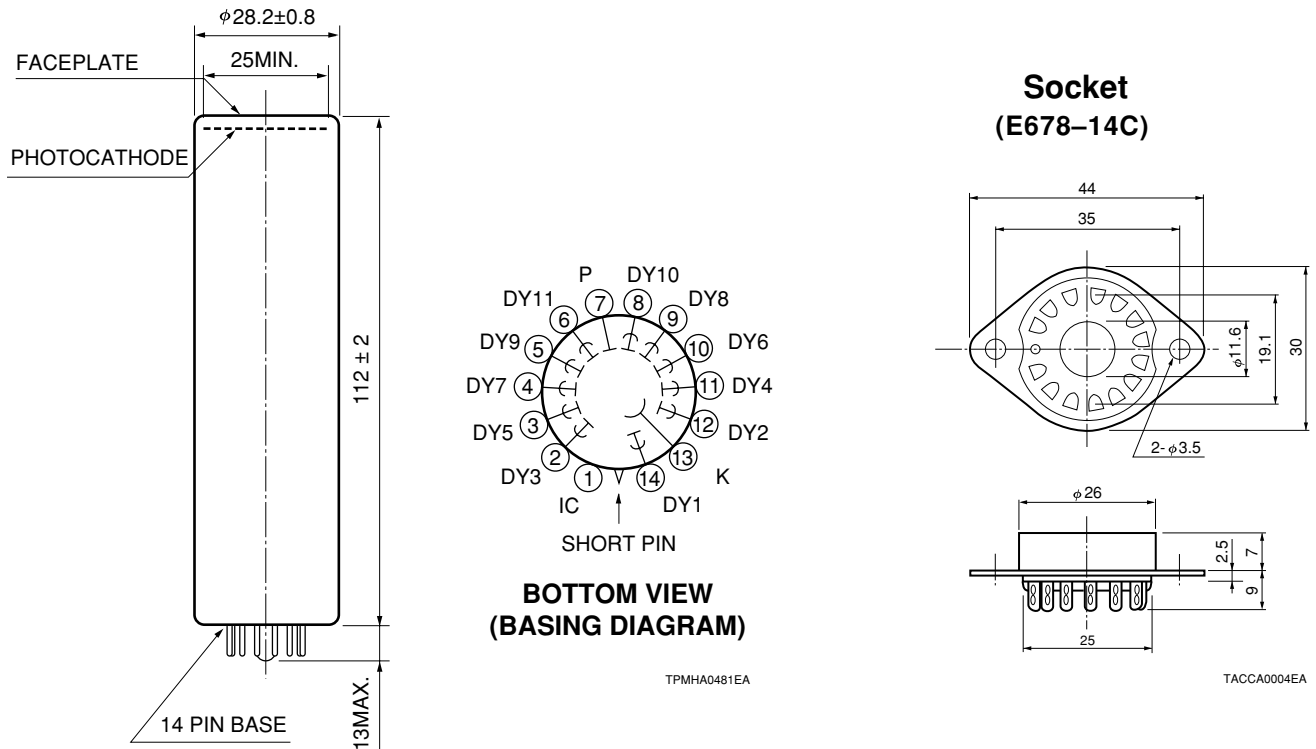


Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)



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HAMAMATSU PHOTONICS K.K., Electron Tube Center

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

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, United Kingdom, Telephone: 44(0)1707-294888, Fax: 44(0)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