

## For Scintillation Counting, 25 mm (1 Inch) Diameter 10-stage, Head-on Type

### GENERAL

Parameter		Description / Value	Unit
Spectral Response		300 to 650	nm
Wavelength of Maximum Response		420	nm
Photocathode	Material	Bialkali	—
	Minimum Effective Area	21	mm dia.
Window Material		Borosilicate glass	—
Dynode	Structure	Linear focused	—
	Number of Stages	10	—
Base		14-pin glass base	—
Suitable Socket		E678-14C (supplied)	—

### MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1800	Vdc
	Between Anode and Last Dynode	400	Vdc
Average Anode Current		0.1	mA
Ambient Temperature		-80 to +50	°C

### CHARACTERISTICS (at 25°C) with voltage Distribution Ratio "A"

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856K)	70	95	—	μA/lm
	Quantum Efficiency at 420nm	—	27	—	%
	Blue (CS-5-58 filter)	—	11	—	μA/lm-b
Anode Sensitivity	Luminous (2856K)	—	190	—	A/lm
Gain		—	$2.0 \times 10^6$	—	—
Anode Dark Current (after 30min. storage in darkness)		—	2	15	nA
Time Response	Anode Pulse Rise Time	—	1.7	—	ns
	Electron Transit Time	—	22	—	ns
	Transit Time Spread (FWHM)	—	0.8	—	ns
Pulse Linearity at 2% Deviation		—	30	—	mA

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

### VOLTAGE DISTRIBUTION RATIO "A" AND SUPPLY VOLTAGE

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	P
Ratio	3	1	1	1	1	1	1	1	1	1	1	

Supply Voltage : 1250Vdc,    K : Cathode,    Dy : Dynode,    P : Anode

# PHOTOMULTIPLIER TUBE R5800

## CHARACTERISTICS (at 25°C) with Voltage Distribution Ratio "B"

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856K)	70	95	—	$\mu\text{A/lm}$
	Quantum Efficiency at 420nm	—	27	—	%
	Blue (CS-5-58 filter)	9	11	—	$\mu\text{A/lm-b}$
Anode Sensitivity	Luminous (2856K)	—	160	—	A/lm
Current Amplification		—	$1.68 \times 10^6$	—	—
Anode Dark Current (after 30min. storage in darkness)		—	2	20	nA
Time Response	Anode Pulse Rise Time	—	1.5	—	ns
	Electron Transit Time	—	21	—	ns
	Transit Time Spread (FWHM)	—	0.9	—	ns
Pulse Linearity at 2% Deviation		—	100	—	mA

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

## VOLTAGE DISTRIBUTION RATIO "B" AND SUPPLY VOLTAGE

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	P
Ratio	3	1	1	1	1	1	1	1	2	3	3	

Supply Voltage : 1250Vdc,    K : Cathode,    Dy : Dynode,    P : Anode

Figure 1: Typical Spectral Response

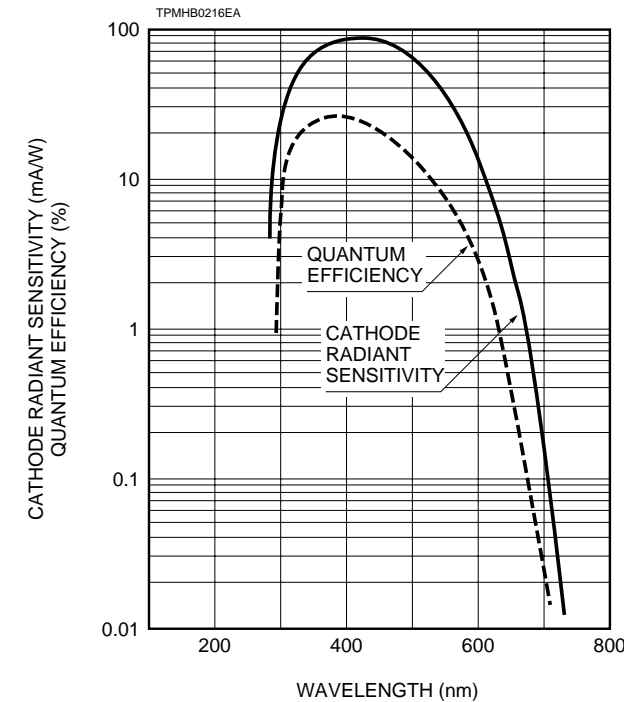
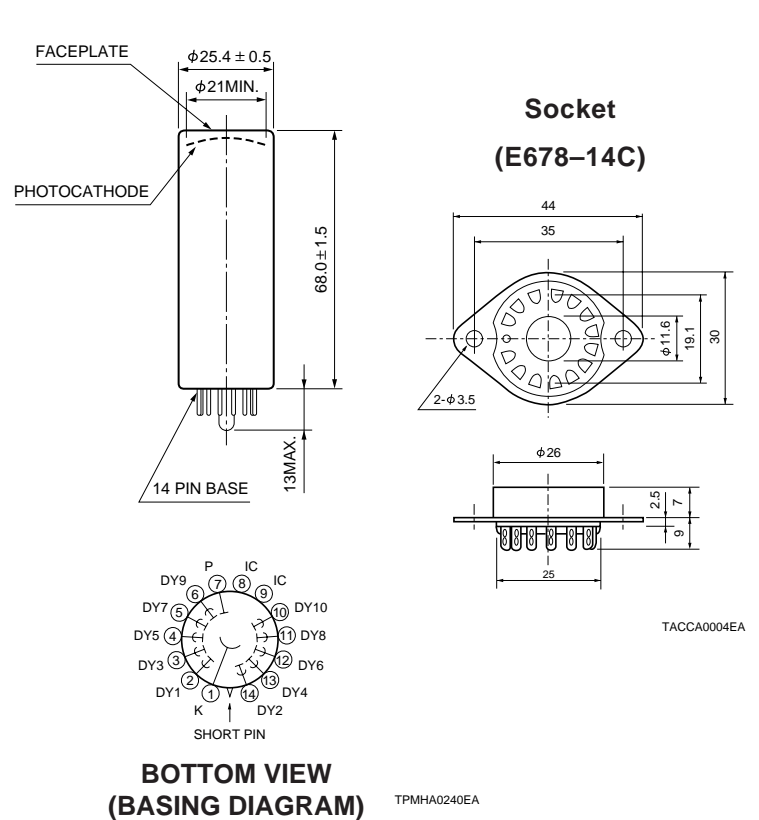


Figure 2: Dimensional Outline and Basing Diagram (Unit: mm)



# HAMAMATSU

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

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-2658

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

United Kingdom: Hamamatsu Photonics UK Limited: Lough Point, 2 Gladbeck Way, Windmill Hill, Enfield, Middlesex EN2 7JA, United Kingdom, Telephone: 44(20)8-367-3560, Fax: 44(20)8-367-6384

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

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

TPMH1079E05  
JUN. 1999