

For Scintillation Counting, Fast Time Response
76mm(3 Inch) Diameter, Bialkali Photocathode, 12-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	65	mm dia.
Window	Material	Borosilicate glass	—
	Shape	Plano-concave	—
Dynode	Structure	Linear focused	—
	Number of Stages	12	—
Suitable Socket		E678-21A (supplied)	—

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	2500	Vdc
Average Anode Current		0.2	mA

CHARACTERISTICS (at 25°C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856K)	60	90	—	μ A/lm
	Radiant at 420nm	—	85	—	mA/W
	Blue (CS-5-58 filter)	9.0	10.5	—	μ A/lm-b
Anode Sensitivity	Luminous (2856K)	50	450	—	A/lm
	Radiant at 420nm	—	4.3×10^5	—	A/W
Gain		—	5×10^6	—	—
Anode Dark Current (after 30min. storage in darkness)		—	10	60	nA
Time Response	Anode Pulse Rise Time	—	2.6	—	ns
	Electron Transit Time	—	48	—	ns
	Transit Time Spread (FWHM)	—	2.0	—	ns
Pulse Linearity	at 2% Deviation	—	80	—	mA
	at 5% Deviation	—	110	—	mA

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	Dy11	Dy12	P
Ratio	4	0	1	1.4	1	1	1	1	1	1	1	1	1	1	1

Supply Voltage : 1500Vdc, K : Cathode, Dy : Dynode, P : Anode, G : Grid

SPECIAL VOLTAGE DISTRIBUTION RATIO FOR PULSE LINEARITY MEASUREMENTS

Electrodes	K	G	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	Dy11	Dy12	P
Ratio	4.3	0	1	1.6	1	1	1	1	1	1	1.6	2	3.3	2	1

Supply Voltage : 2000Vdc, K : Cathode, Dy : Dynode, P : Anode, G : Grid

PHOTOMULTIPLIER TUBE R6091

Figure 1: Typical Spectral Response

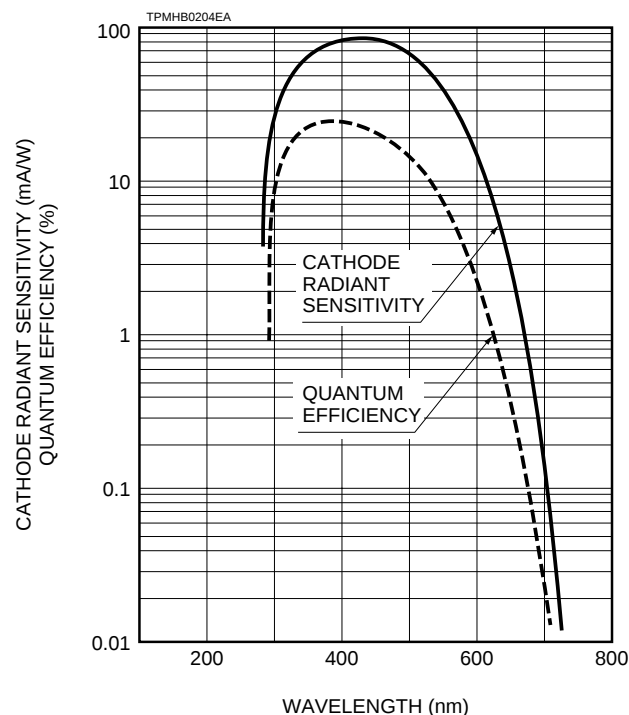
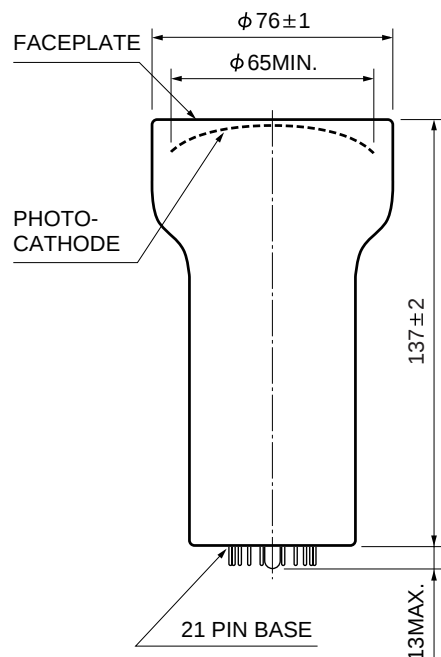


Figure 2: Dimensional Outline and Basing Diagram (Unit : mm)

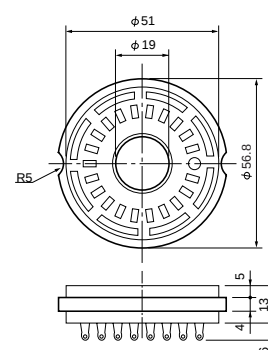


BOTTOM VIEW
(BASING DIAGRAM)

※ The shield pin (SH) should be connected to Dy5.

TPMHA0285EA

Socket
(E678-21A)



TACCA0011EA

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, 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 Trappu, 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)181-367-3560, Fax: (44)181-367-6384

North Europe: Hamamatsu Photonics Norden AB: Färögatan 7, S-164-40 Kista Sweden, Telephone: (46)8-703-29-50, Fax: (46)8-750-58-95

Italy: Hamamatsu Photonics Italia: S.R.L.: Via Della Moia, 1/E, 20020 Arese, (Milano), Italy, Telephone: (39)2-935 81 733, Fax: (39)2-935 81 741

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