

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

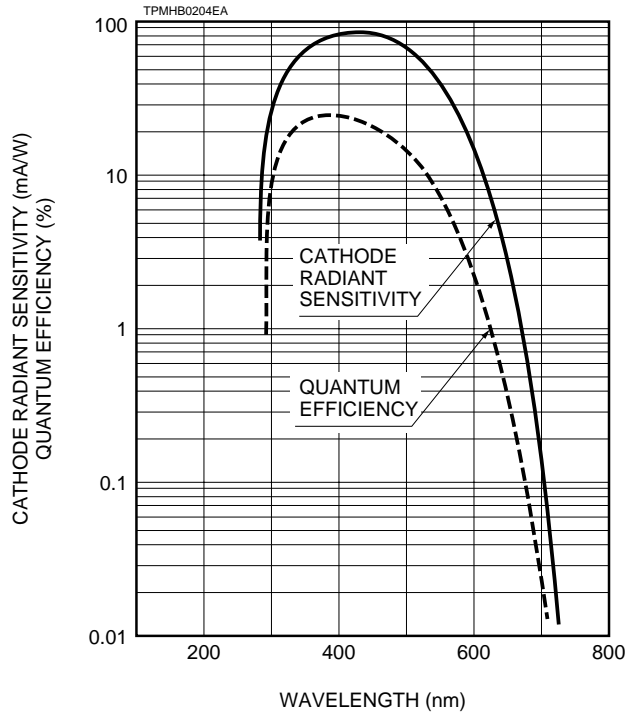
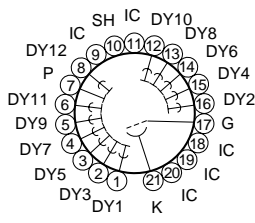
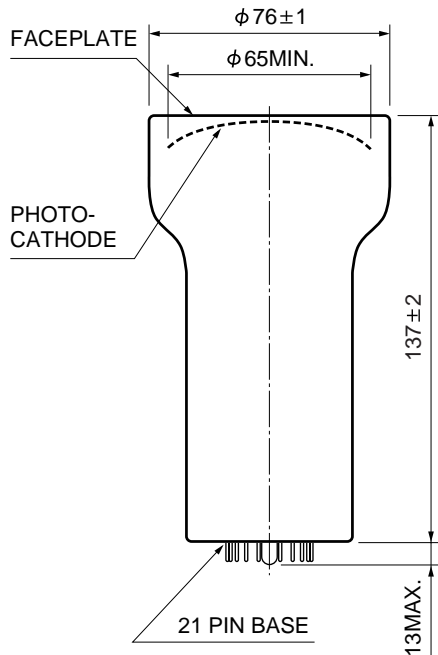


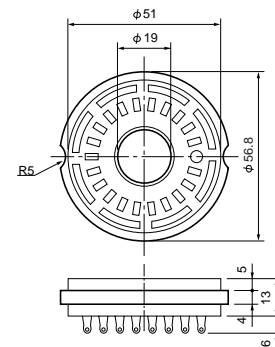
Figure 2: Dimensional Outline and Basing Diagram (Unit : mm)



BOTTOM VIEW
(BASING DIAGRAM)

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

Socket
(E678-21A)



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TPMHA0285EA

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