

HAMAMATSU

PHOTOMULTIPLIER TUBES R464, R585

For Photon Counting 5mm × 8mm Bialkali Photocathode
51mm(2 Inch) Diameter, Head — On Type

GENERAL

Parameter		R464	R585	Unit
Spectral Response		300 to 650	160 to 650	nm
Wavelength of Maximum Response		420		nm
Photocathode	Material	Bialkali		—
	Minimum Effective Area	5 × 8		mm
Window Material		Borosilicate glass	Synthetic silica	—
Dynode	Structure	Box and Grid		—
	Number of Stages	12		—
Base		21 pin glass base		—
Suitable Socket		E678–21A(supplied)		—

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1500	Vdc
Avarage Anode Current		0.01	mA
Ambient Temperature		-80 to +50	°C

CHARACTERISTICS (at 25°C)

Parameter		Min.	Typ.	Max.	Unit
Cathode	Luminous(2856K)	30	50	—	μA/lm
Sensitivity	Radiant at 420nm	—	50	—	mA/W
Anode	Luminous(2856K)	100	300	—	A/lm
Sensitivity	Radiant at 420nm	—	3.0×10 ⁵	—	A/W
Gain		—	6.0×10 ⁶	—	—
Anode Dark Counts		—	5	15	cps
Time Response	Anode Pulse Rise Time	—	13	—	ns
	Electron Transit Time	—	70	—	ns

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

VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrode	K	G	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	Dy11	Dy12	P
Ratio	4	0	2.5	1.5	1	1	1	1	1	1	1	1	1	1	1

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

PHOTOMULTIPLIER TUBES R464,R585

Figure 1: Typical Spectral Response

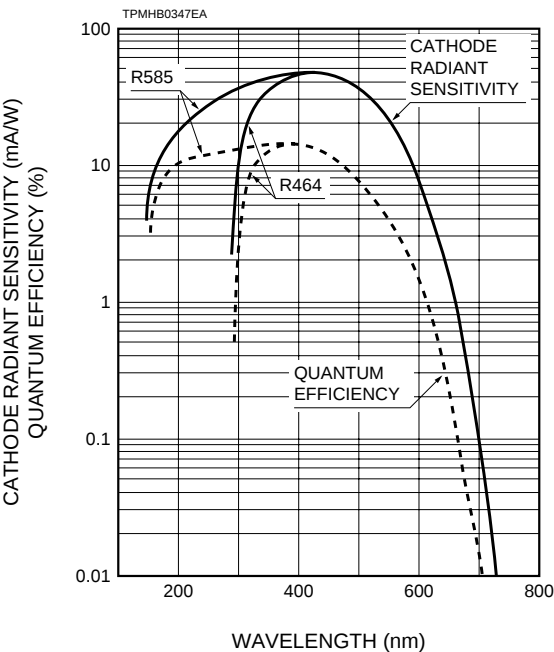


Figure 2: Typical Gain

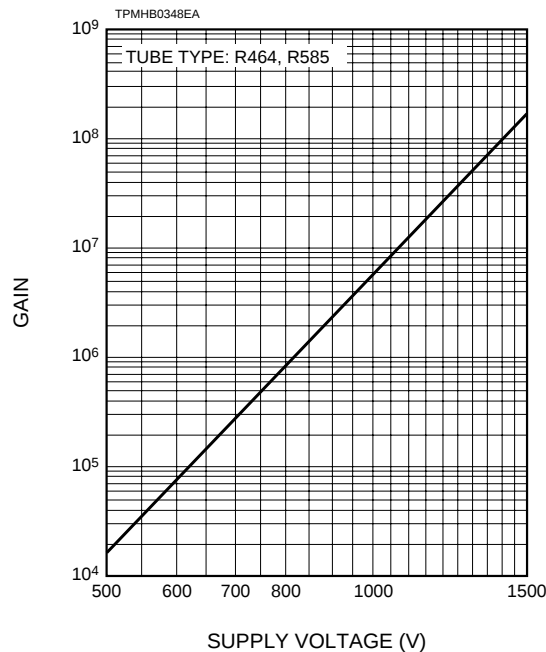


Figure 3: Typical Single Pulse Height Distribution of Dark Current

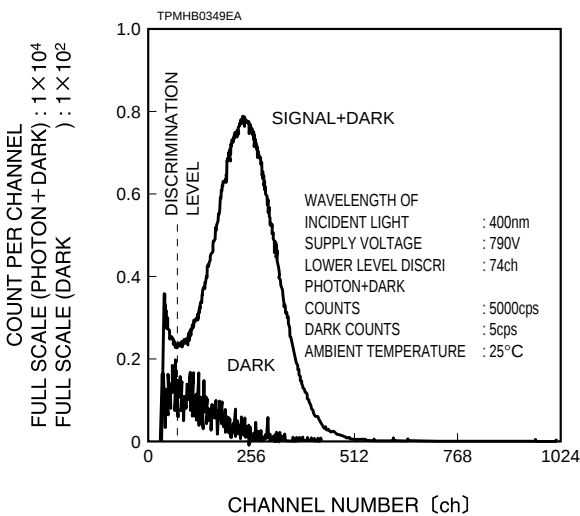
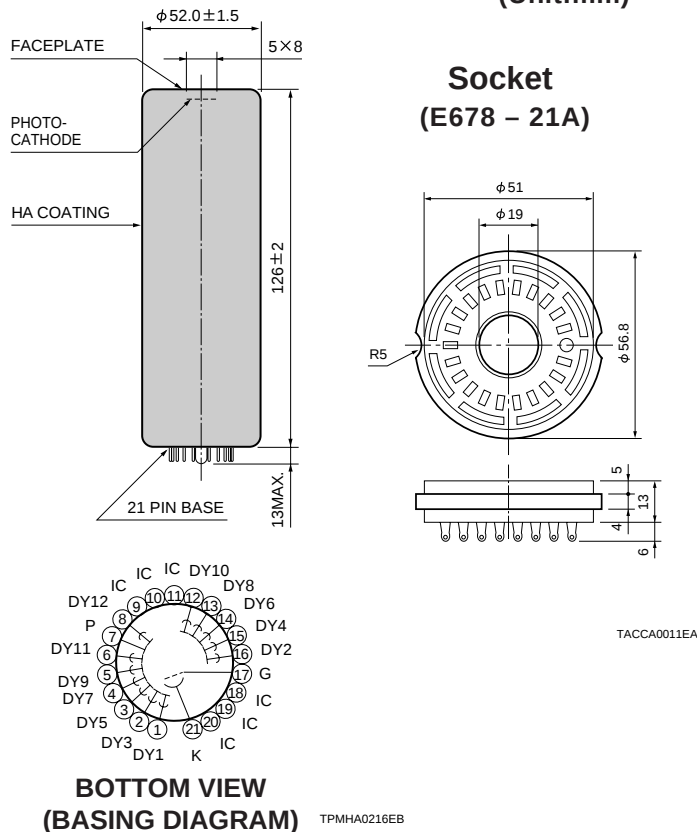


Figure 4: Dimensional Outline and Basing Diagram (Unit:mm)



HAMAMATSU

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