

**13 mm (1/2 Inch) Diameter, S-20 Spectral Response  
Multialkali Photocathode, 10-Stage, Head-on Type**

**GENERAL**

Parameter		Description/Value	Unit
Spectral Response		185 to 850	nm
Wavelength of Maximum Response		420	nm
Photocathode	Material	Multialkali	—
	Minimum Effective Area	φ10	mm
Window Material		UV glass	—
Dynode	Structure	Linear focused	—
	Number of Stages	10	—
Operating Ambient Temperature		-30 to +50	°C
Storage Temperature		-80 to +50	°C
Base		13-pin glass base	—
Suitable Socket		E678-13F (supplied)	—

**MAXIMUM RATINGS (Absolute Maximum Values)**

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1250	V
	Between Anode and Last Dynode	250	V
Average Anode Current		0.01	mA

**CHARACTERISTICS (at 25°C)**

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856 K)	80	120	—	μA/lm
	Radiant at 420 nm	—	51	—	mA/W
	Red/White Ratio (with R-68 filter)	—	0.2	—	—
Anode Sensitivity	Luminous (2856 K)	30	120	—	A/lm
	Radiant at 420 nm	—	5.1 × 10 <sup>4</sup>	—	A/W
Gain		—	1.0 × 10 <sup>6</sup>	—	—
Anode Dark Current (after 30 min storage in darkness)		—	4	20	nA
Time Response	Anode Pulse Rise Time	—	2.5	—	ns
	Electron Transit Time	—	24	—	ns

**VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE**

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

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

# PHOTOMULTIPLIER TUBE R1463

Figure 1: Typical Spectral Response

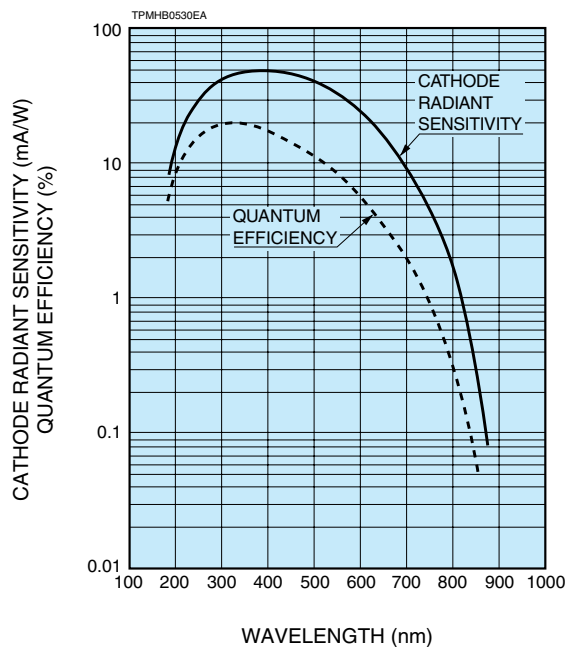


Figure 2: Typical Gain Characteristics

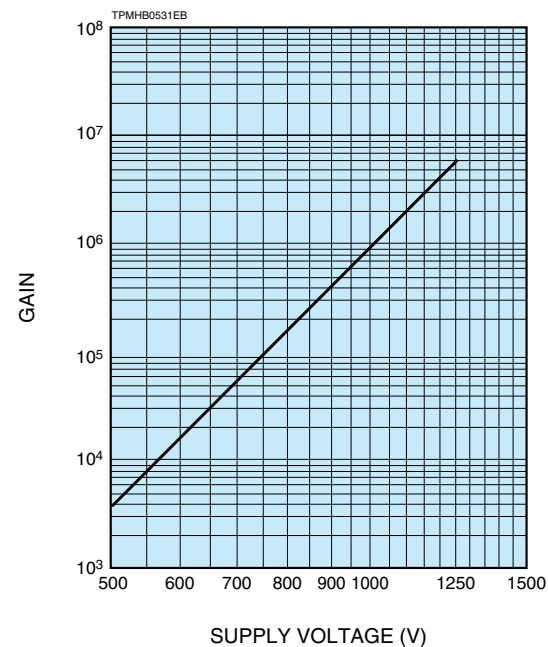


Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)

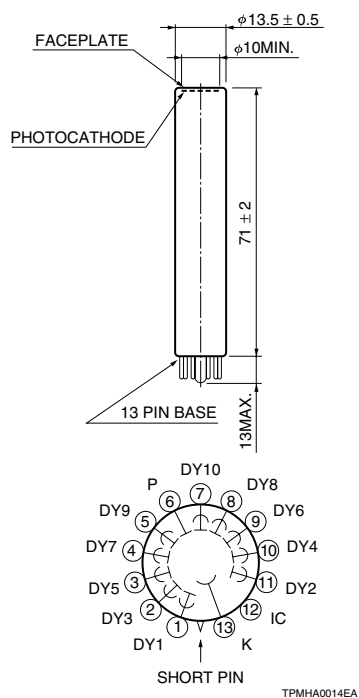
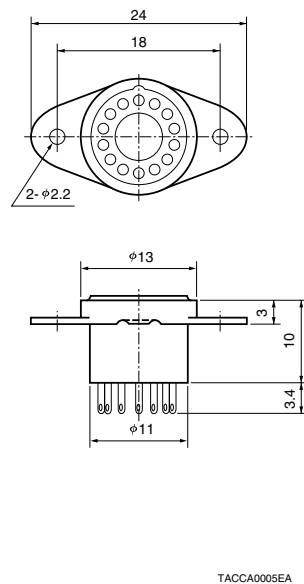
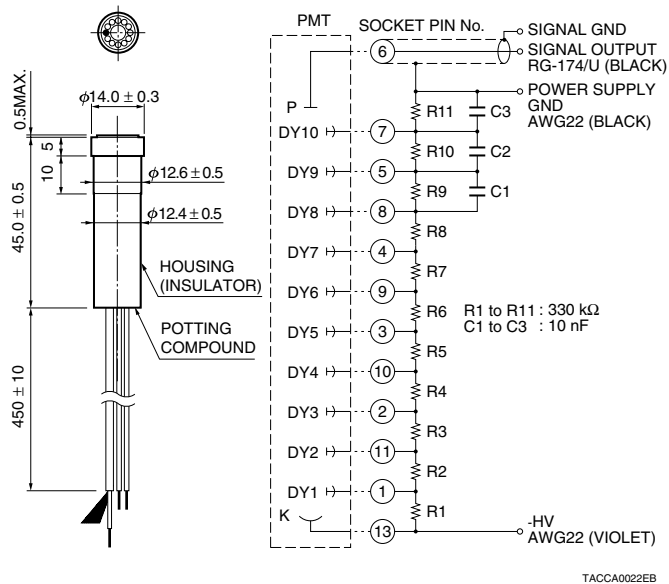


Figure 4: Accessories (Unit: mm)

●Socket E678-13F (Supplied)



●D-type Socket Assembly E849-35 (Sold separately)



\* HAMAMATSU also provides high voltage power supply modules C4900 series and C10940 series.

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