

**High Speed Response (Rise Time = 0.7ns, TTS = 0.16ns FWHM)  
25mm (1 Inch) Diameter, 10 - stage, Bialkali Photocathode, Head - On Type**

### GENERAL

Parameter		H6533	H6610	Unit
Assembled Photomultiplier Tube		R4998	R5320	—
Spectral Response		300 to 650	160 to 650	nm
Wavelength of Maximum Response		420		nm
Photocathode	Material	Bialkali		—
	Minimum Effective Area	20		mm dia.
Window Material		Borosilicate glass	Synthetic silica	—
Dynode	Structure	Linear focused		—
	Number of Stages	10		—
Case		Magnetic shield case		—

### MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Description/Value	Unit
Supply Voltage	Between Anode and Cathode	-2500	Vdc
Voltage Divider Current		0.36	mA
Average Anode Current		0.016	mA
Ambient Temperature		-30 to +50	°C

### CHARACTERISTICS (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856 K)	60	70	—	μA/lm
	Blue (CS 5 - 58 filter)	6	9	—	μA/lm-b
Anode Sensitivity	Luminous (2856 K)	100	400	—	A/lm
Gain		—	5.7 × 10 <sup>6</sup>	—	—
Anode Dark Current (after 30 min. storage in darkness)		—	100	800	nA
Time Response	Anode Pulse Rise Time	—	0.7	—	ns
	Electron Transit Time	—	10	—	ns
	Transit Time Spread (T.T.S.)	—	0.16	—	ns

**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	P
Ratio	1.3	4.8	1.2	1.8	1	1	1	1	1	1.5	3	2.5	

Supply Voltage: -2250 Vdc, K: Cathode, Dy: Dynode, P: Anode, G: Grid  
Acc to be connected to Dy7

# PHOTOMULTIPLIER TUBE ASSEMBLIES H6533/H6610

Figure 1: Typical Spectral Response

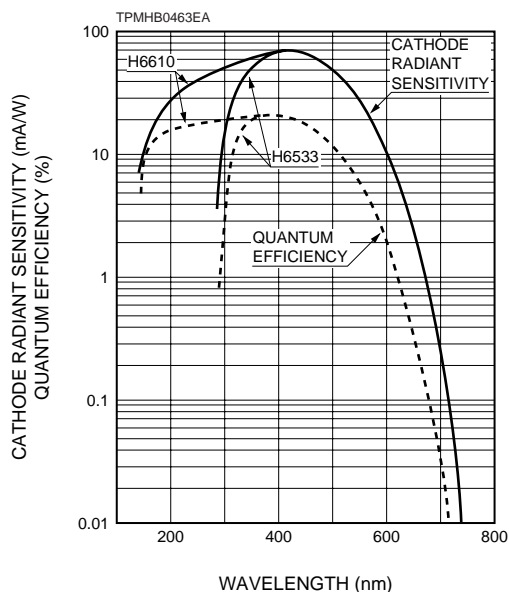


Figure 2: Typical Gain and Anode Dark Current

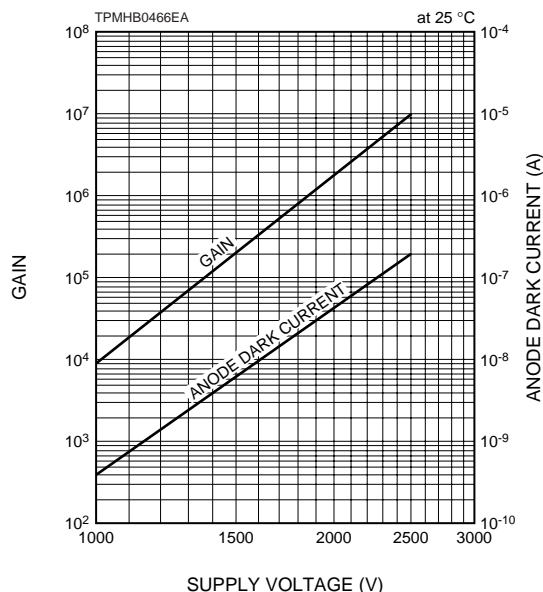
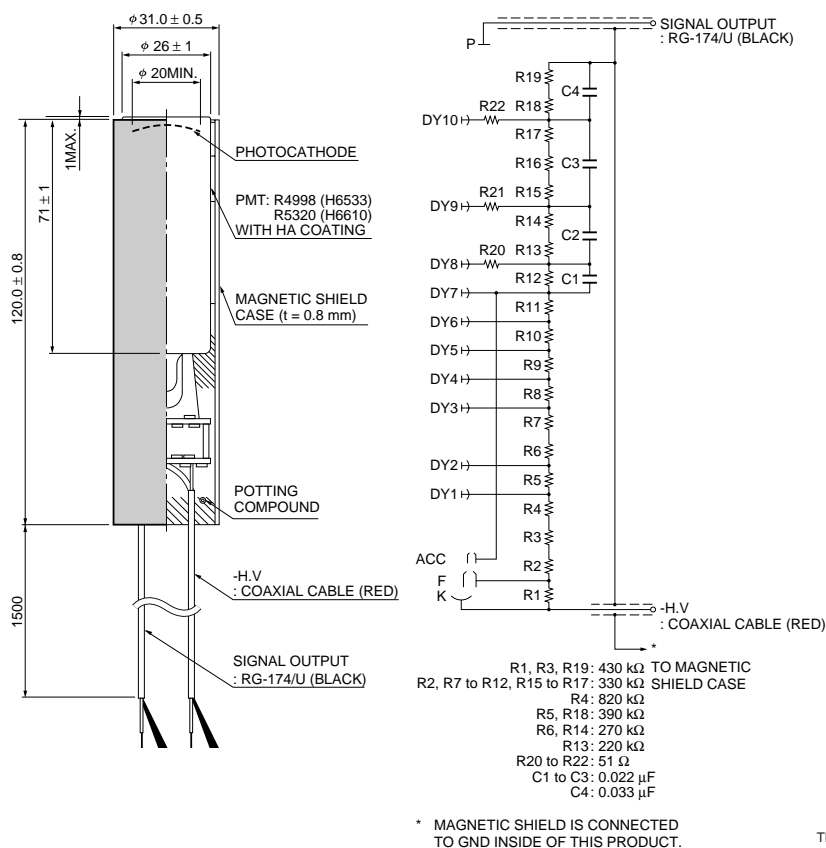


Figure 3: Dimensional Outline and Circuit Diagram (Unit: mm)



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