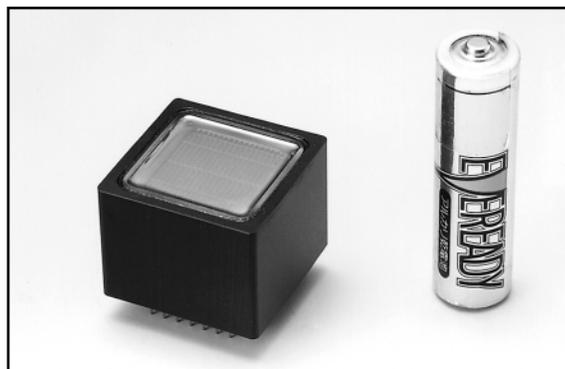


FEATURES

- High Speed Response
- Wide Dynamic Range
- Compact



GENERAL

Parameter		Description/Value	Unit
Spectral Response		300 to 650	nm
Peak Wavelength		420	nm
Photocathode	Material	Bialkali	—
	Minimum Effective Area	18 × 18	mm
Window Material		Borosilicate glass	—
Dynode	Structure	Metal channel dynode	—
	Number of Stages	10	—
Weight		Approx. 25.5	g
Suitable Socket		E678-32B (sold separately)	—
Operating Ambient Temperature		-30 to +50	°C
Storage Temperature		-30 to +50	°C

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	900	V
Average Anode Current		0.1	mA

CHARACTERISTICS (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856 K)	60	70	—	μA/lm
	Blue Sensitivity Index (CS 5-58)	7	8	—	—
Anode Sensitivity	Luminous (2856 K)	30	140	—	A/lm
Gain		5.0×10^5	2.0×10^6	—	—
Anode Dark Current (after 30 min storage in darkness)		—	2	20	nA
Time Response	Anode Pulse Rise Time	—	1.5	—	ns
	Transit Time Spread (FWHM)	—	0.26	—	ns
Pulse Linearity	±2 % deviation	—	30	—	mA

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

VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	P
Ratio	1.5	1.5	1.5	1	1	1	1	1	1	1	1	1

Supply Voltage: 800 Vdc, K: Cathode, Dy: Dynode, P: Anode

Subject to local technical requirements and regulations, availability of products included in this promotional material may vary. Please consult with our sales office.

Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. © 2003 Hamamatsu Photonics K.K.

PHOTOMULTIPLIER TUBE R5900U

Figure 1: Typical Spectral Response

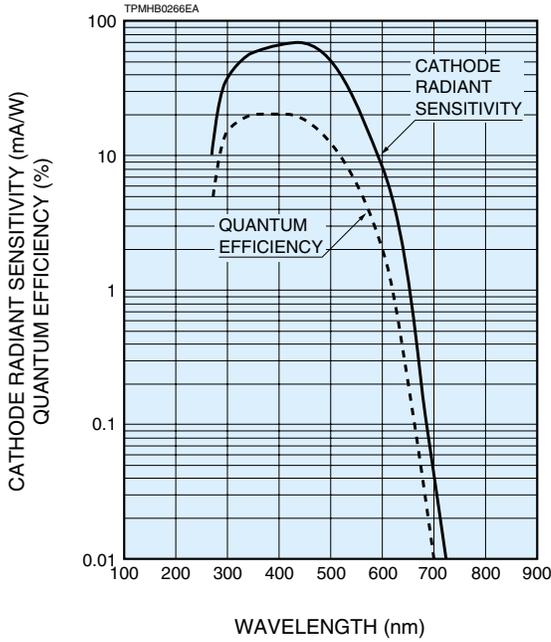


Figure 2: Typical Gain and Anode Dark Current

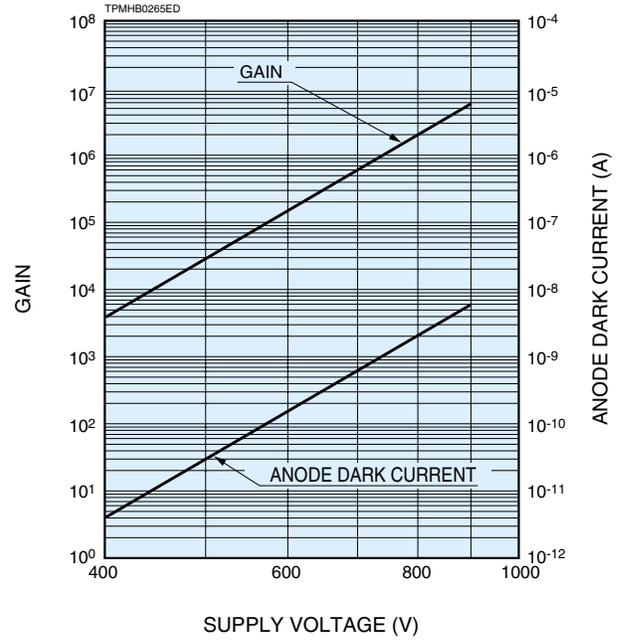


Figure 3: Typical Time Response

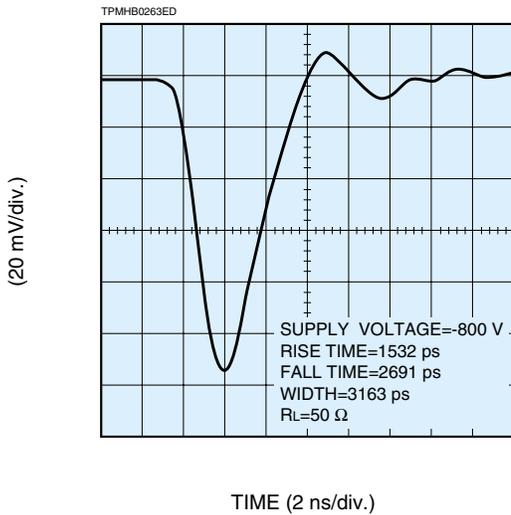


Figure 4: Typical T.T.S. Characteristic

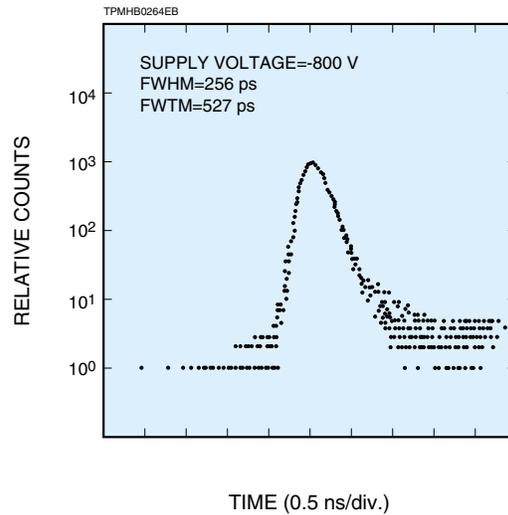


Figure 5: Effect of Magnetic Fields on Anode Output

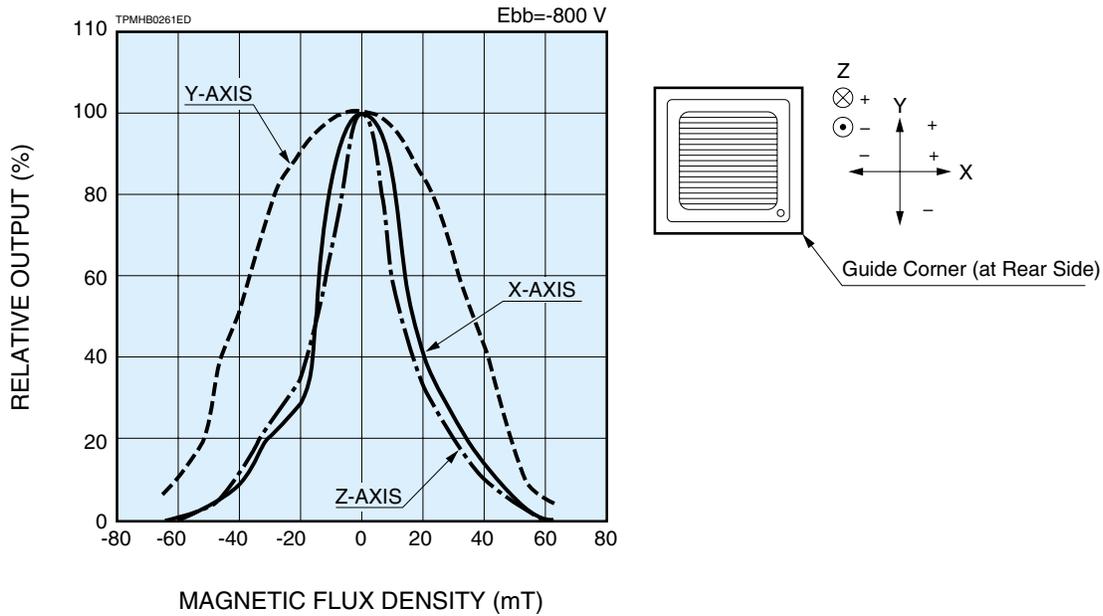
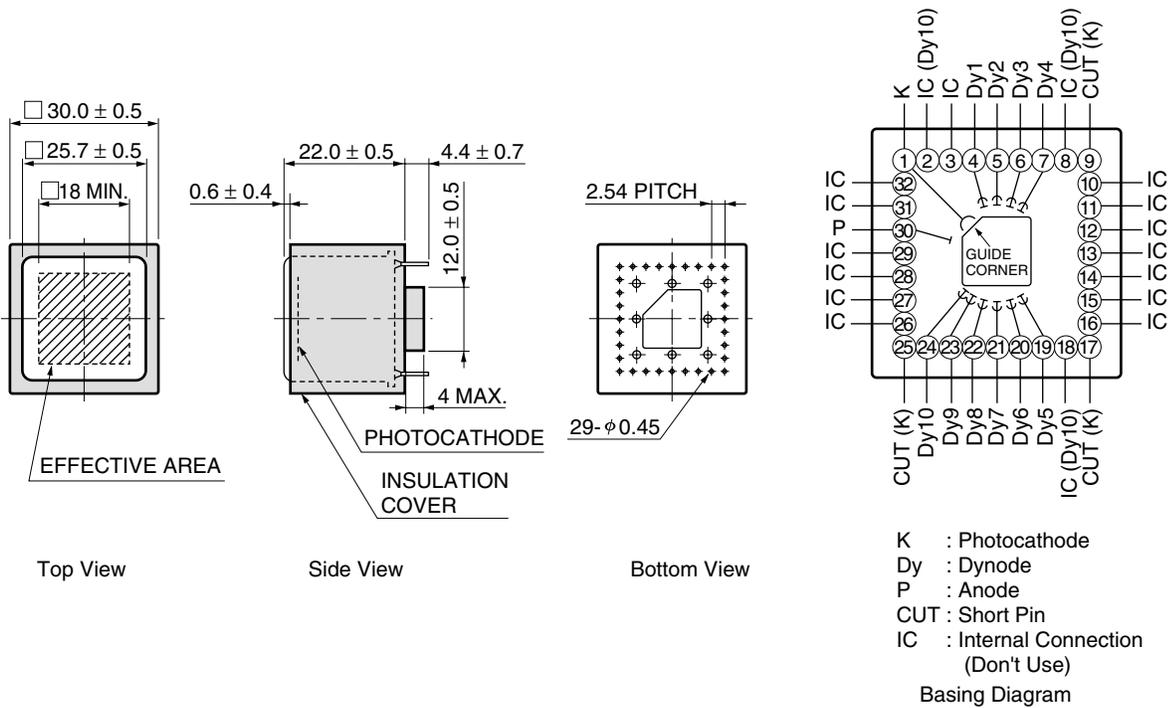


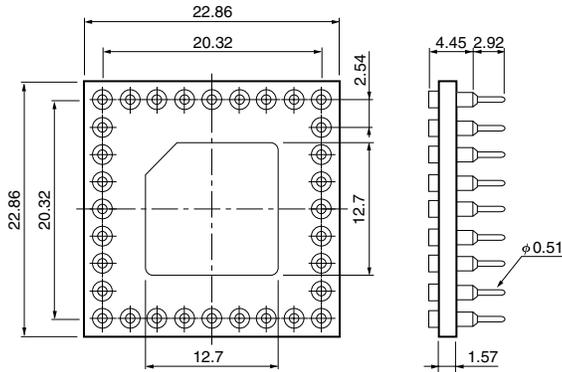
Figure 6: Dimensional Outline and Basing Diagram (Unit: mm)



PHOTOMULTIPLIER TUBE R5900U

[ACCESSORIES] (Unit: mm)

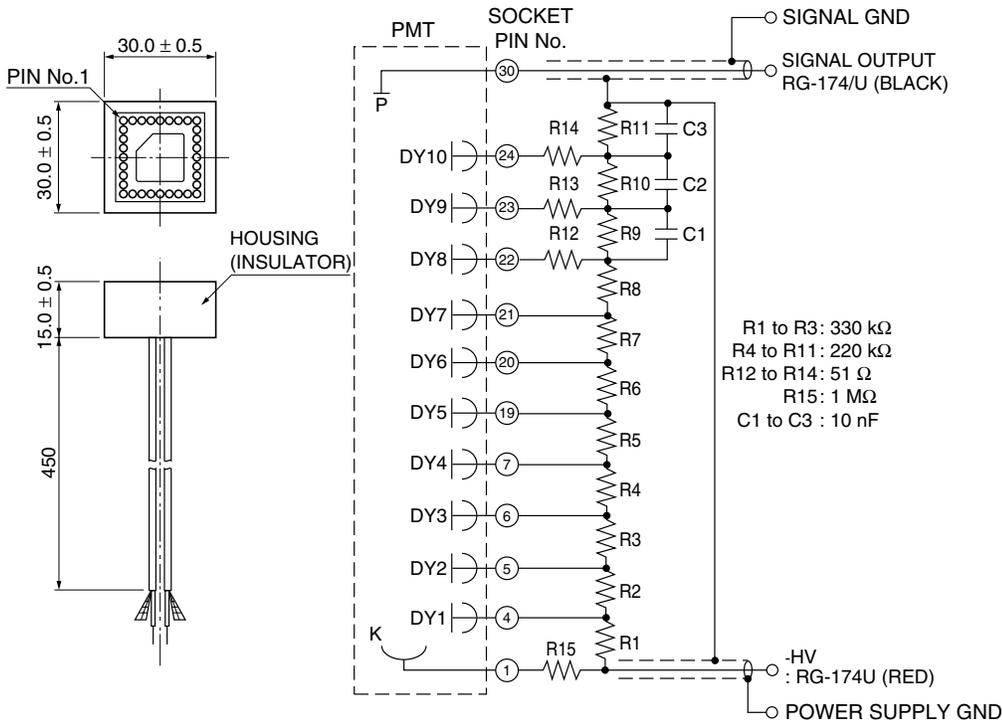
● **Socket E678-32B** **SOLD SEPARATELY**



MATERIAL: Glass Epoxy

TACCA0094ED

● **D Type Socket Assembly E5996** **SOLD SEPARATELY**



TACCA0234EC

WARNING ~ High Voltage ~

The product is operated at high voltage potential. Further, the metal housing of the product is connected to the photocathode (potential) so that it becomes a high voltage potential when the product is operated at a negative high voltage (anode grounded). Accordingly, extreme safety care must be taken for the electrical shock hazard to the operator or the damage to the other instruments.

* PATENT: USA Pat. No. 5410211

PATENT PENDING: JAPAN 11, USA 1, EUROPE 2

HAMAMATSU

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