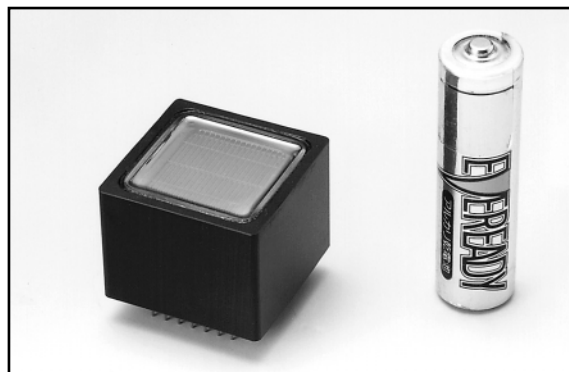


## FEATURES

- 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		$5.0 \times 10^5$	$2.0 \times 10^6$	—	—
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.

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# PHOTOMULTIPLIER TUBE R5900U

Figure 1: Typical Spectral Response

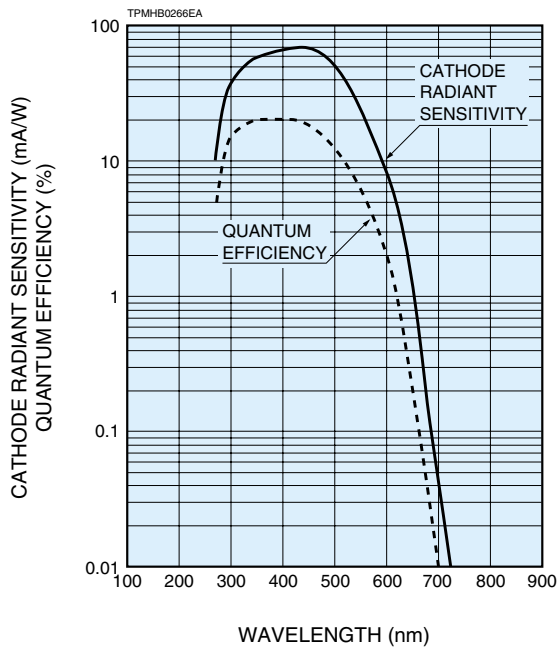


Figure 2: Typical Gain and Anode Dark Current

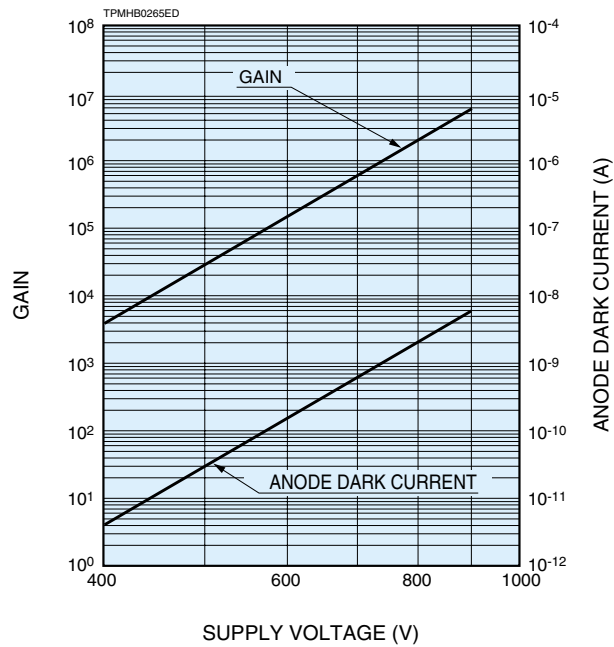


Figure 3: Typical Time Response

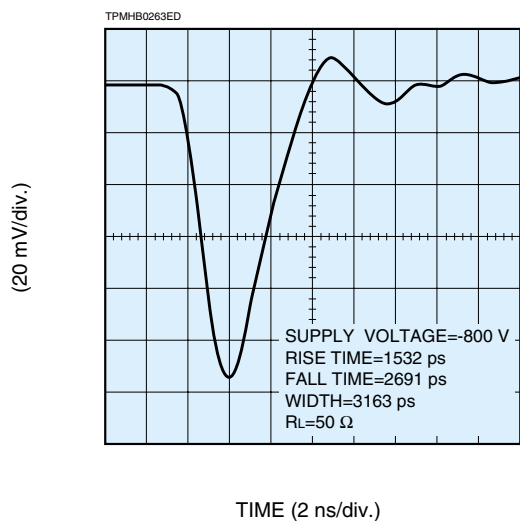


Figure 4: Typical T.T.S. Characteristic

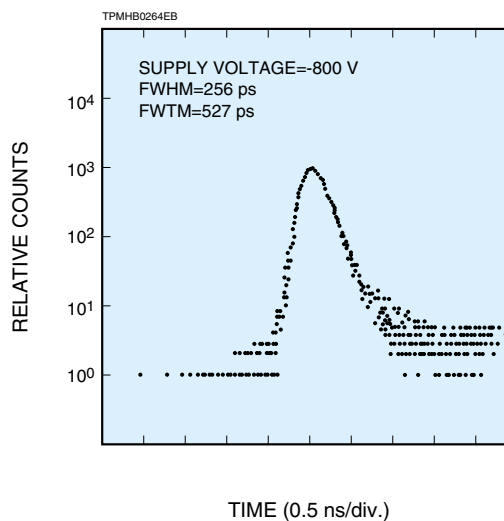


Figure 5: Effect of Magnetic Fields on Anode Output

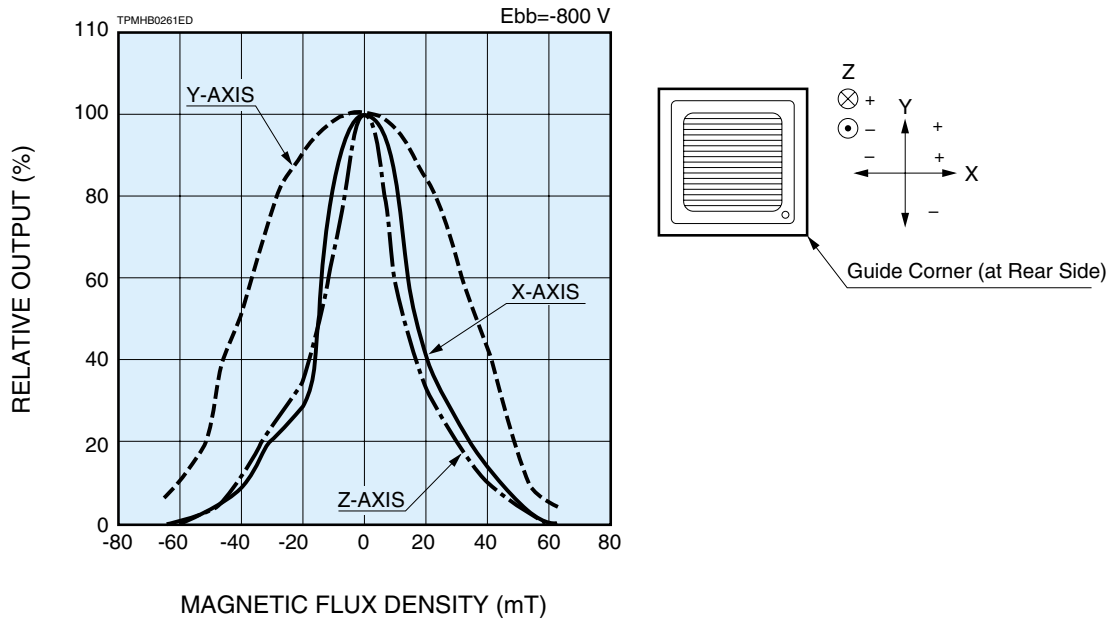
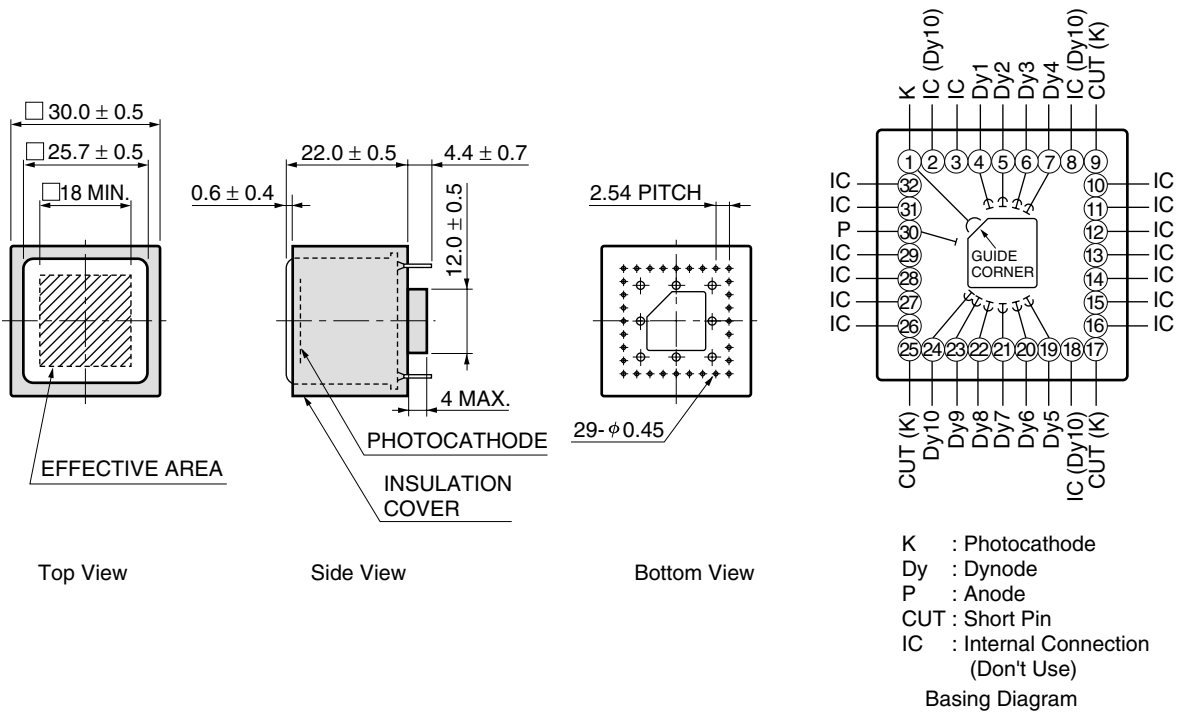


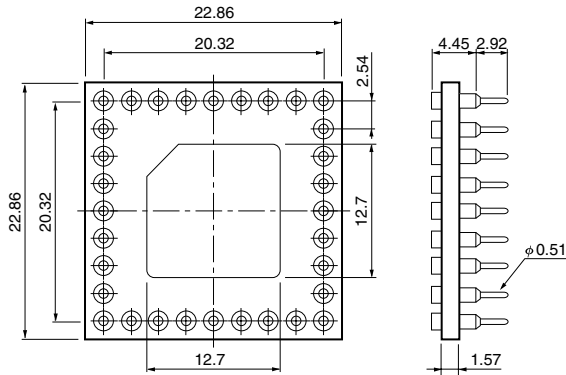
Figure 6: Dimensional Outline and Basing Diagram (Unit: mm)



# PHOTOMULTIPLIER TUBE R5900U

[ACCESSORIES] (Unit: mm)

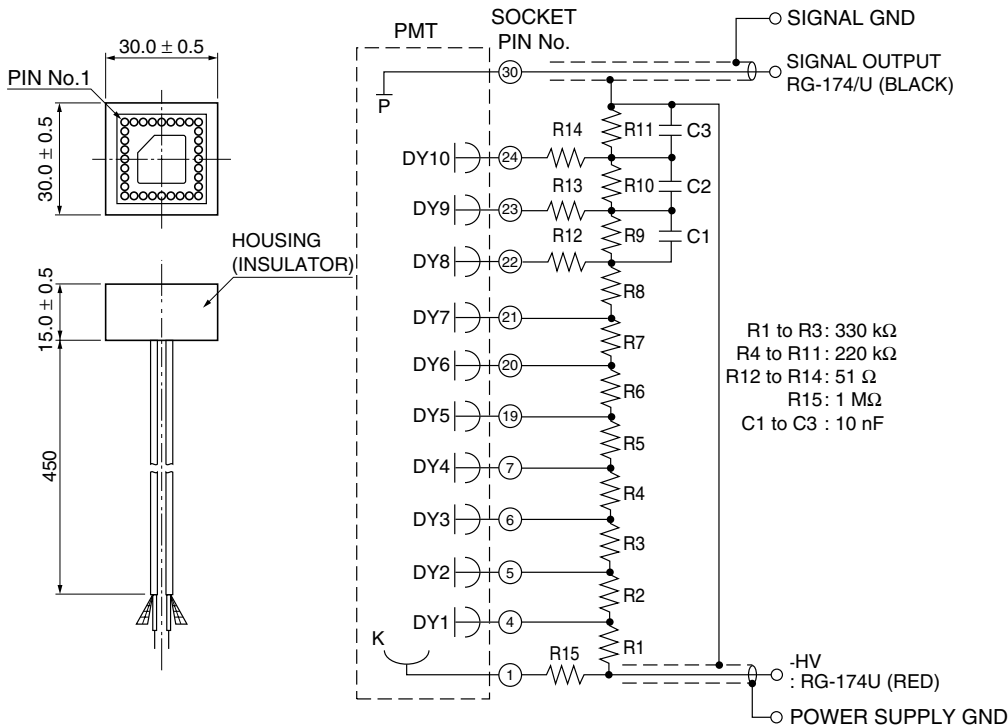
● **Socket E678-32B** **SOLD SEPARATELY**



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

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