

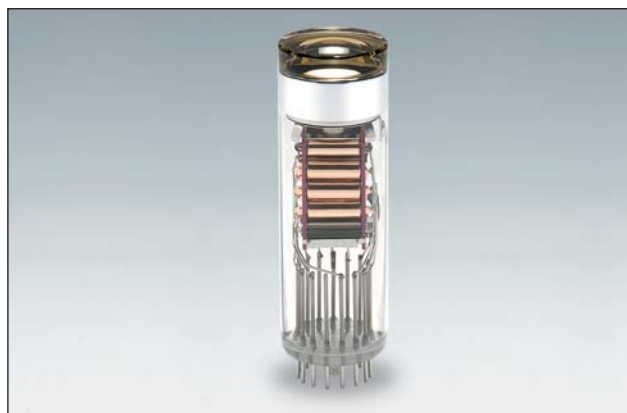
FEATURES

- Fast time response

APPLICATIONS

- For scintillation counting
- High energy physics

SPECIFICATIONS



GENERAL

Parameter		R6427	R7056	R7057	Unit
Spectral response		300 to 650	185 to 650	160 to 650	nm
Wavelength of maximum response		420			nm
Photocathode	Material	bialkali			—
	Minimum effective area	φ25			mm
Window material		Borosilicate glass	UV glass	Silica glass	—
Dynode	Structure	Linear focused			—
	Number of stages	10			—
Operating ambient temperature		-30 to +50			°C
Storage temperature		-80 to +50			°C
Base		14-pin glass base			—
Suitable socket		E678-14C (supplied)			—

MAXIMUM RATINGS (Absolute maximum values)

Parameter		Value	Unit
Supply voltage	Between anode and cathode	2000	V
	Between anode and last dynode	350	V
Average anode current		0.1	mA

CHARACTERISTICS (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit
Cathode sensitivity	Luminous (2856 K)	70	100	—	μA/lm
	Radiant at 420 nm	—	88	—	mA/W
	Blue sensitivity index (CS 5-58)	—	11.0	—	—
Anode sensitivity	Luminous (2856 K)	—	500 (200)	—	A/lm
	Radiant at 420 nm	—	4.4 × 10 ⁵ (1.8 × 10 ⁵)	—	A/W
Gain		—	5.0 × 10 ⁶ (2.0 × 10 ⁶)	—	—
Anode dark current (after 30 min storage in darkness)		—	10 (4)	200 (80)	nA
Time response	Anode pulse rise time	—	1.7 (1.8)	—	ns
	Electron transit time	—	16 (17)	—	ns
	Transit time spread (FWHM)	—	500	—	ps
Pulse linearity (at 2 % deviation)		—	10 (100)	—	mA

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

(): Measured with the voltage distribution ratio B shown below.

VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	P
Ratio A	4	1	1.5	1	1	1	1	1	1	1	1	
Ratio B (Tapered)	4	1	1.5	1	1	1	1.2	1.5	2	3.3	3	

Supply voltage: 1500 V, K: Cathode, Dy: Dynode, P: Anode

PHOTOMULTIPLIER TUBES R6427, R7056, R7057

Figure 1: Typical spectral response

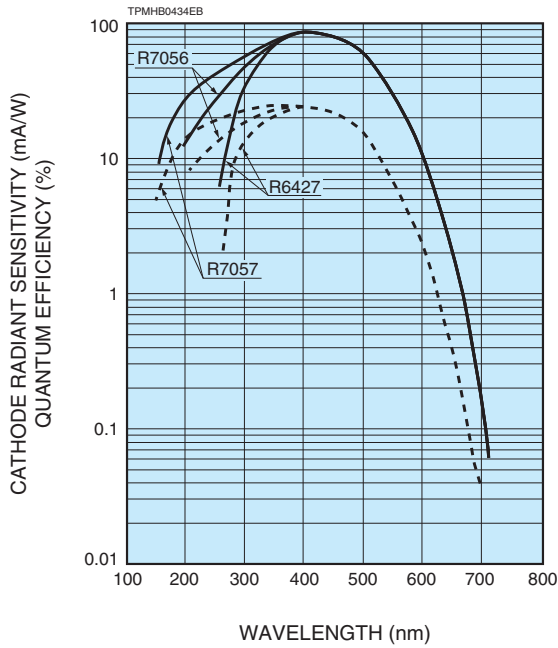


Figure 2: Typical gain

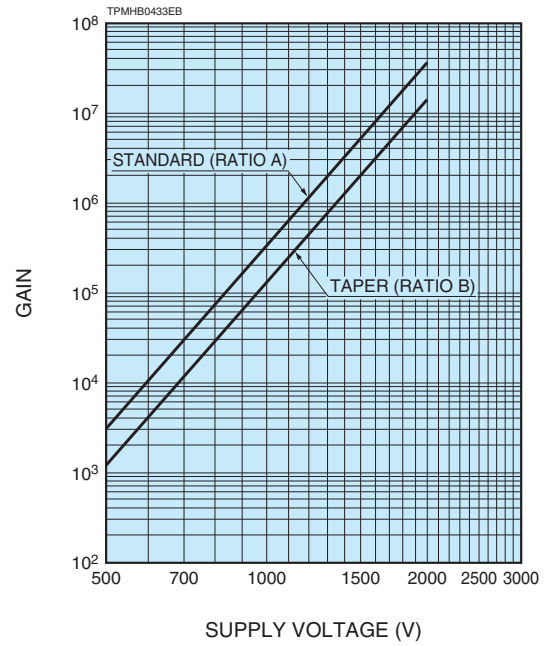


Figure 3: Typical pulse height distribution (P.H.D.)

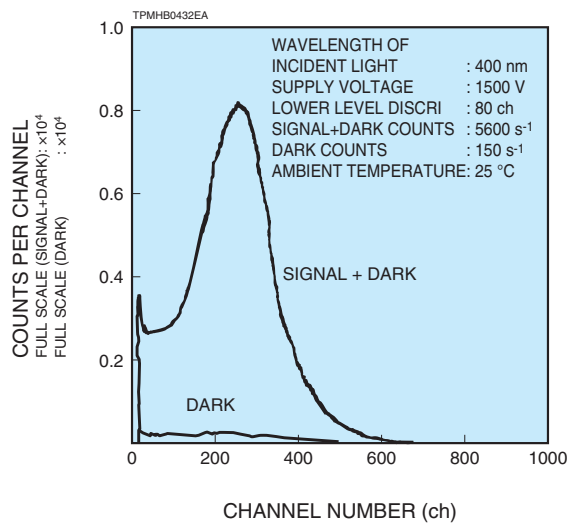


Figure 4: Time response (with Ratio A)

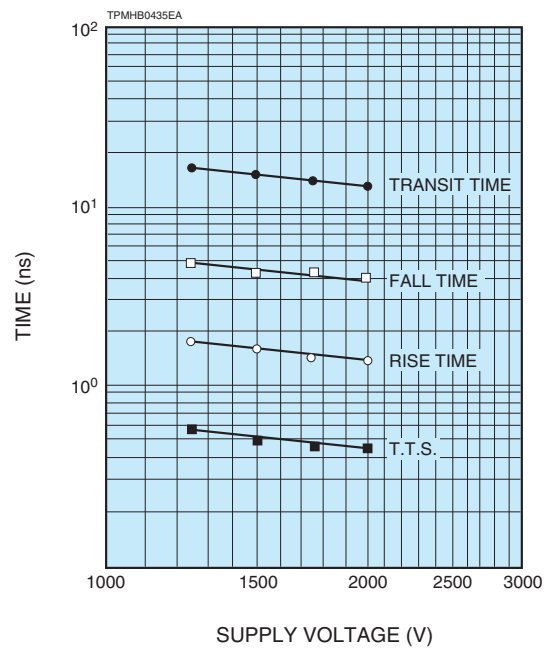


Figure 5: Anode output waveform (with Ratio A)

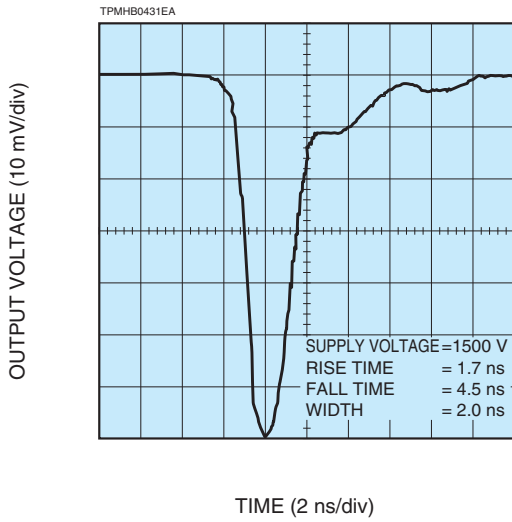


Figure 6: Transit time spread (T.T.S.) (with Ratio A)

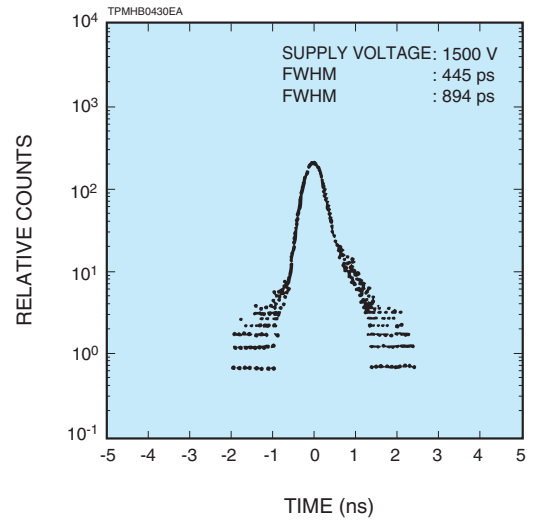
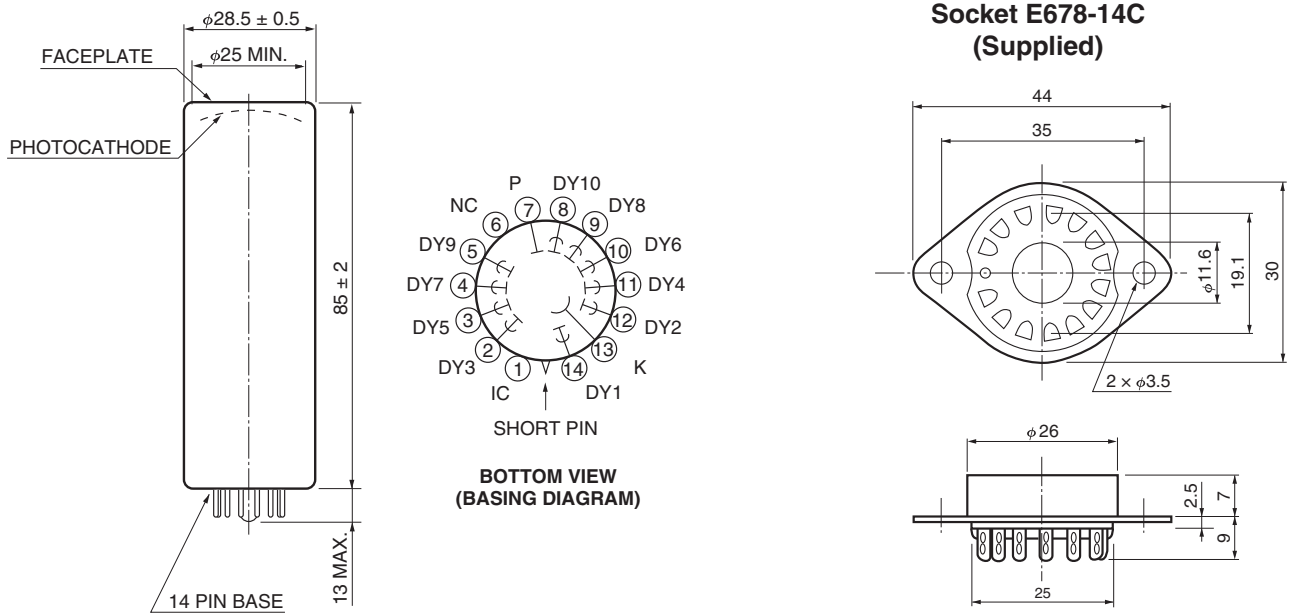


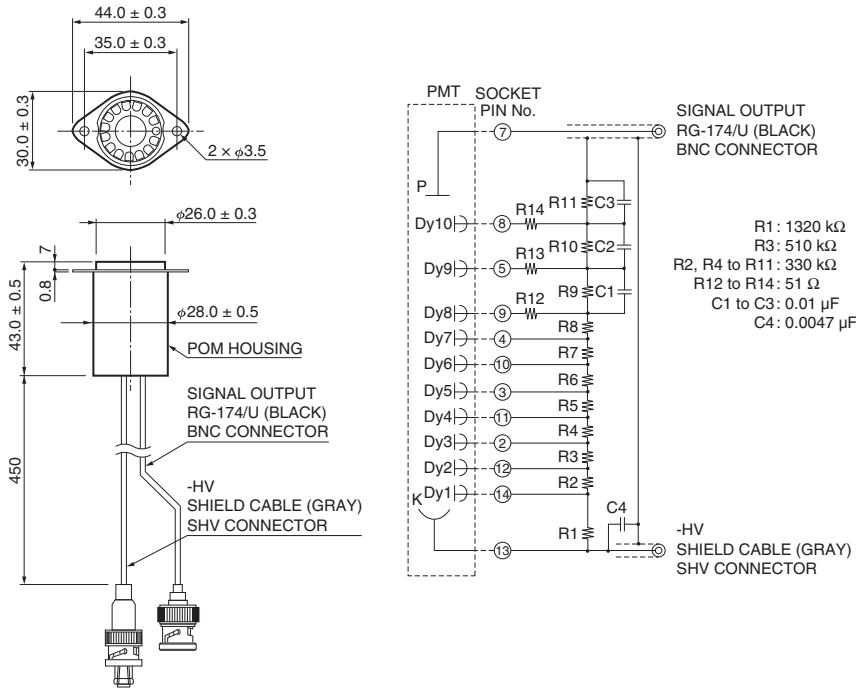
Figure 7: Dimensional outline and basing diagram (Unit: mm)



PHOTOMULTIPLIER TUBES R6427, R7056, R7057

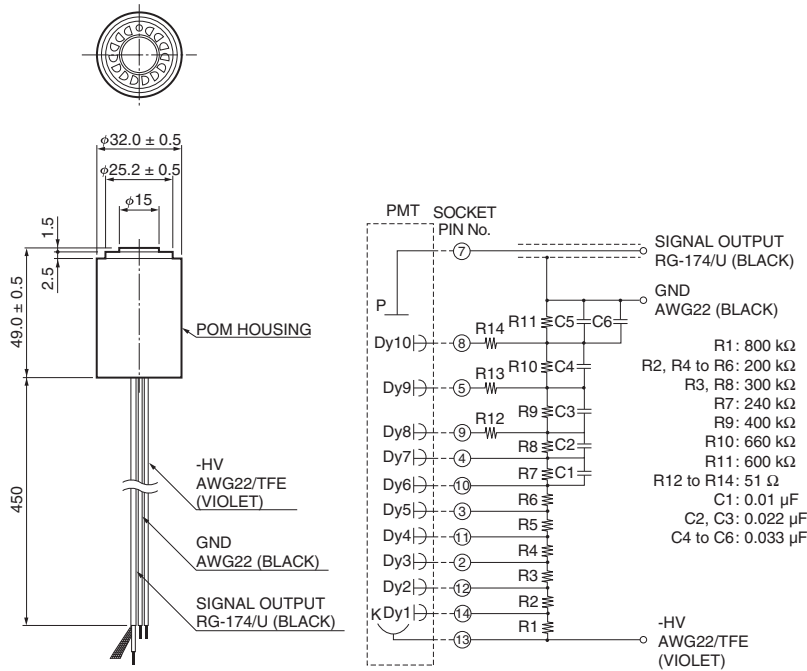
[ACCESSORIES]

●D-type socket assembly E2624-14 (for Ratio A)



TACCA0082EC

●D-type socket assembly E2624-04 (for Ratio B)



TACCA0084EC

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