

**For Scintillation Counting, Fast Time Response
25 mm (1 Inch) Diameter, Bialkali Photocathode, 8-stage, Head-on Type**

SPECIFICATIONS

GENERAL

Parameter		Description / Value	Unit
Spectral Response		300 to 650	nm
Wavelength of Maximum Response		420	nm
Window Material		Borosilicate glass	—
Photocathode	Material	Bialkali	—
	Minimum Effective Area	φ22	mm
Dynode	Structure	Linear focused	—
	Number of Stages	8	—
Base		JEDEC No. B12-43 / Flying lead type	—
Operating Ambient Temperature		-30 to +50	°C
Storage Temperature		-80 to +50	°C
Suitable Socket		E678-12A (supplied)	—

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1500	V
Average Anode Current		0.1	mA

CHARACTERISTICS (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856 K)	70	95	—	μA/lm
	Blue Sensitivity Index (CS 5-58)	9	11	—	—
Anode Sensitivity	Luminous (2856 K)	20	100	—	A/lm
Gain		—	1.1 × 10 ⁶	—	—
Anode Dark Current (After 30 minute storage in darkness)		—	5	50	nA
Time Response	Anode Pulse Rise Time	—	1.0	—	ns
	Electron Transit Time	—	11	—	ns
	Transit Time Spread (FWHM)	—	270	—	ps
Pulse Linearity (±2 % deviation)		—	30	—	mA

NOTE: Anode characteristics are measured with a voltage distribution ratio and supply voltage shown below.

VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	P
Ratio	4	1.5	1.5	1	1	1	1	1	1	1

Supply Voltage: 1300 V, K: Cathode, Dy: Dynode, P: Anode

PHOTOMULTIPLIER TUBE R9800

Figure 1: Typical Spectral Response

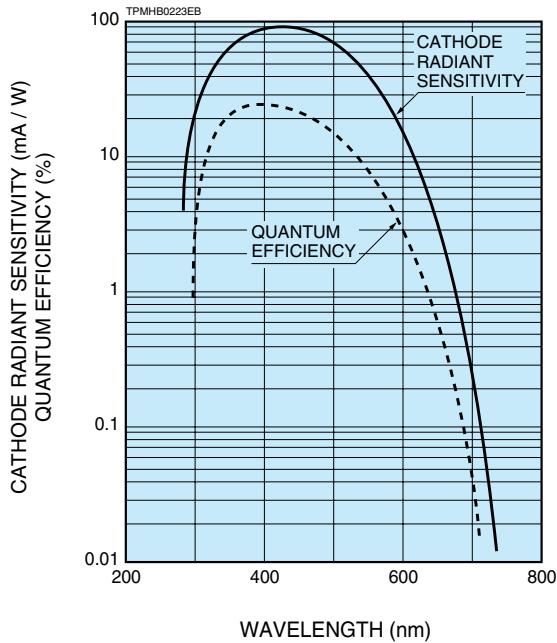


Figure 2: Typical Gain

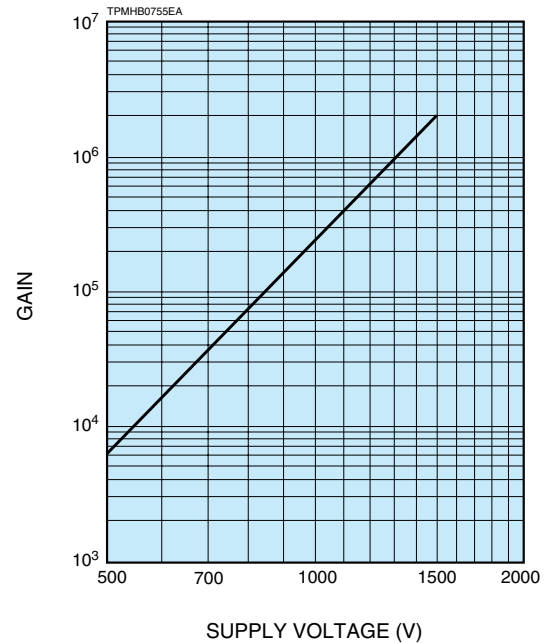
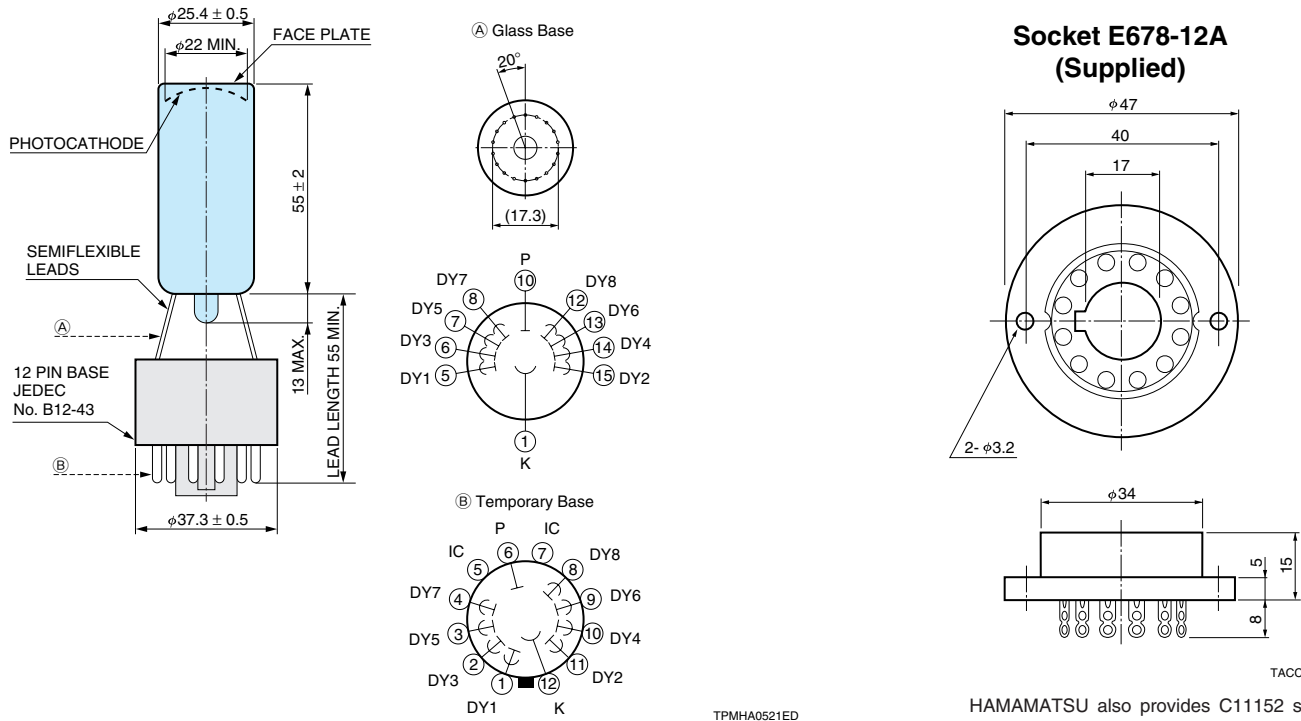


Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)



NOTES

The material in the R9800 contains Copper-Beryllium (CuBe) Alloy. Please follow the applicable regulations regarding disposal of hazardous materials and industrial wastes in your country, state, region or province.

HAMAMATSU also provides C11152 series and C9619 series compact high voltage power supply modules.

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