

**For Astro-physics and Other Ultraviolet Radiation Detection
Solar Blind Response (160nm to 320nm), Cs-Te Photocathode
19mm (3/4 Inch) Diameter, 10-stage, Head-On**

GENERAL

Parameter		Description/Value	Unit
Spectral Response		160 to 320	nm
Wavelength of Maximum Response		240	nm
Photocathode	Material	Cs-Te	—
	Minimum Effective Area	15	mm dia.
Window Material		Fused silica	—
Dynode	Structure	Linear focused	—
	Number of Stages	10	—
Base		12-pin glass base	—
Suitable Socket		E678-12L (supplied)	—

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1250	Vdc
	Between Anode and Last Dynode	250	Vdc
Average Anode Current		0.01	mA
Ambient Temperature		-80 to +50	°C

CHARACTERISTICS (at 25°C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Radiant at 254nm	—	28	—	mA/W
Anode Sensitivity	Radiant at 254nm	4×10^3	1.0×10^4	—	A/W
Gain		—	3.6×10^5	—	—
Anode Dark Current (after 30min. storage in darkness)		—	0.3	0.5	nA
Time Response	Anode Pulse Rise Time	—	2.5	—	ns
	Electron Transit Time	—	27	—	ns

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	1	1	1	1	1	1	1	1	1	1

Supply Voltage: 1000Vdc, K: Cathode, Dy: Dynode, P: Anode

PHOTOMULTIPLIER TUBE R821

Figure 1: Typical Spectral Response

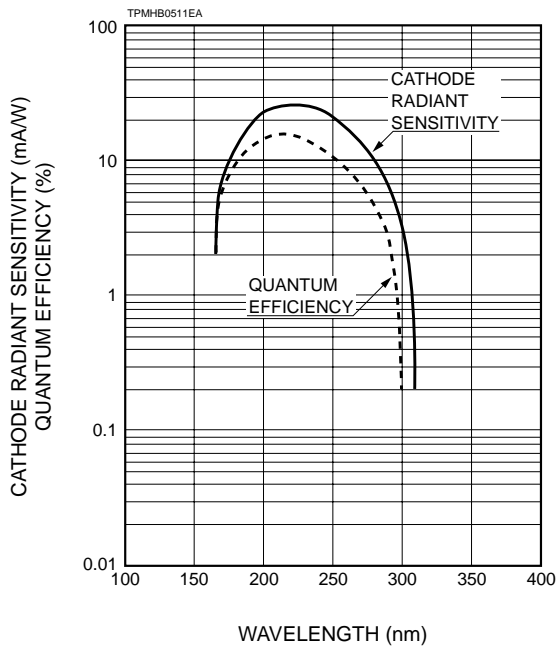


Figure 2: Typical Gain Characteristics

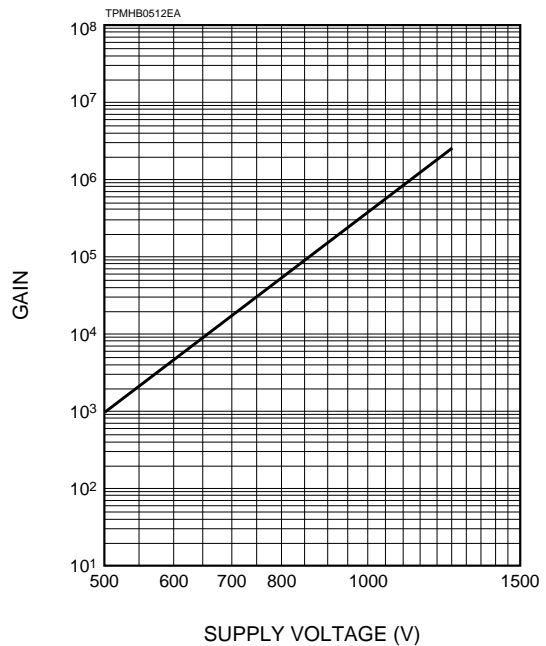
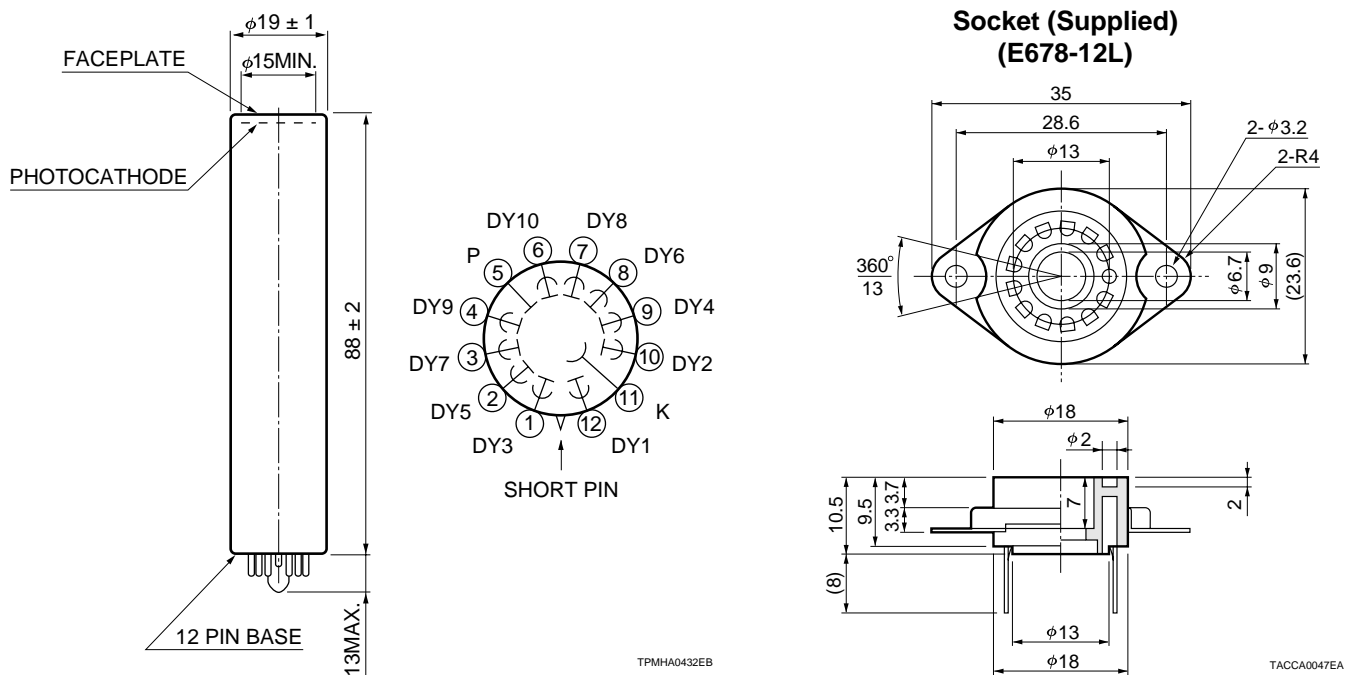


Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)



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