

**For VUV Detection, 13 mm(1/2 Inch) Diameter, 10-stage,  
Head-On Type, Solar Blind Response (115 nm to 200 nm)**

## GENERAL

Parameter		Description / Value	Unit
Spectral Response		115 to 200	nm
Wavelength of Maximum Response		140	nm
Photocathode	Material	Cs-I	—
	Minimum Effective Area	φ 6	mm
Window Material		MgF <sub>2</sub>	—
Dynode	Structure	Linear focused	—
	Number of Stages	10	—
Direct Interelectrode capacitance	Anode to Last Dynode	1.0	pF
	Anode to All Other Electrodes	2.0	pF
Operating Ambient Temperature		-80 to +50	°C
Storage Temperature		-80 to +50	°C
Base		12-pin base JEDEC No. B12-43	—
Suitable Socket		E678-12A (supplied)	—

## MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	2250	V
	Between Anode and Last Dynode	250	V
Average Anode Current		0.01	mA

## CHARACTERISTICS (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Radiant at 122 nm	—	12	—	mA/W
	Quantum Efficiency at 130 nm	—	13	—	%
Anode Sensitivity	Radiant at 122 nm	$2.0 \times 10^2$	$1.2 \times 10^3$	—	A/W
Gain		—	$1.0 \times 10^5$	—	—
Anode Dark Current (after 30 min storage in darkness)		—	0.03	0.05	nA
Time Response	Anode Pulse Rise Time	—	1.8	—	ns
	Electron Transit Time	—	18	—	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	1	1	1	1	1	1	1	1	1	1	1

Supply Voltage: 2000 V, K: Cathode, Dy: Dynode, P: Anode

# PHOTOMULTIPLIER TUBE R1081

Figure 1: Typical Spectral Response

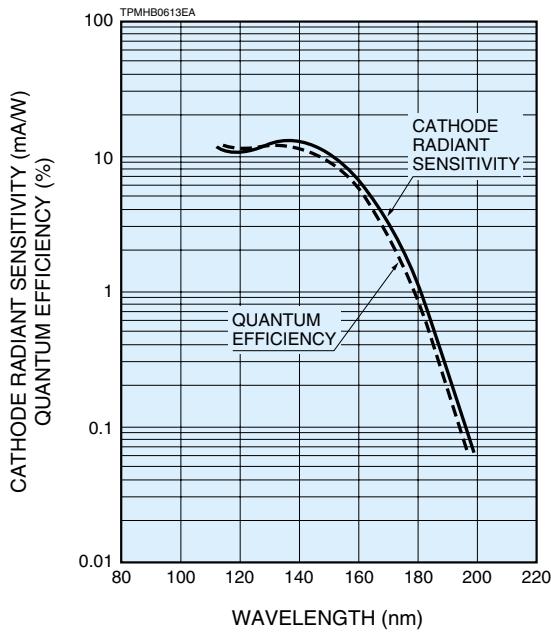


Figure 2: Typical Gain Characteristics

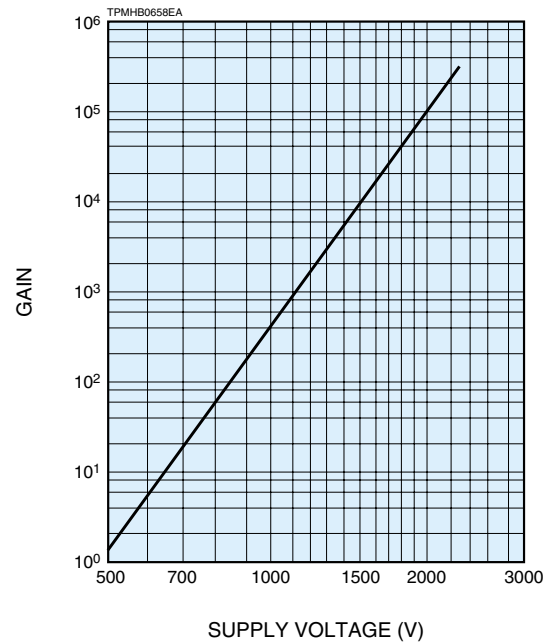
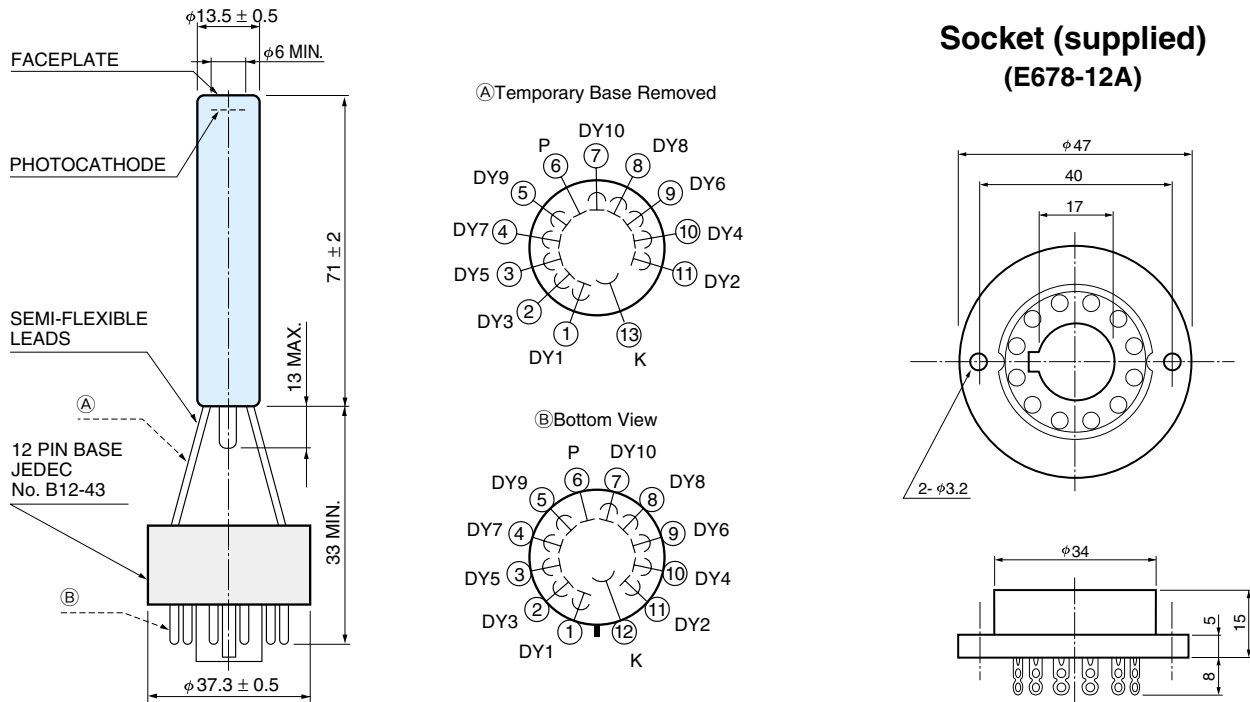


Figure 3: Dimensional Outline and Basing Diagram (Unit : mm)



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