

**For High Temperature Scintillation Counting,  
Ruggedized, Low Profile, 25 mm (1 Inch) Diameter,  
High Temp. Bialkali Photocathode, 10-stage, Head-on Type**

**GENERAL**

Parameter		Description	Unit
Spectral Response		300 to 650	nm
Wavelength of Maximum Response		375	nm
Photocathode	Material	High Temp. Bialkali	—
	Minimum Effective Area	φ22	mm
Window Material		Borosilicate glass	—
Dynode	Structure	Circular and Linear focused	—
	Number of Stages	10	—
Operating Ambient Temperature		-30 to +175	°C
Storage Temperature		-80 to +175	°C
Base configuration		Flying Lead Temporary Base	—
Suitable Socket		E678-12R (supplied)	—

**MAXIMUM RATINGS (Absolute Maximum Values)**

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1800	V
	Between Anode and Last Dynode	250	V
Average Anode Current		0.02	mA

**CHARACTERISTICS (at 25 °C)**

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856 K)	20	40	—	μA/lm
	Quantum Efficiency at 375 nm	—	16.9	—	%
	Blue Sensitivity Index (CS 5-58)	4	6	—	—
Anode Sensitivity	Luminous (2856 K)	8	15	—	A/lm
Gain		—	3.8 × 10 <sup>5</sup>	—	—
Anode Dark Current (after 30 min storage in darkness)		—	0.1	10	nA
Time Response	Anode Pulse Rise Time	—	1.3	—	ns
	Electron Transit Time	—	13	—	ns

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

**CHARACTERISTICS (at 175 °C) with Standard Voltage Divider**

Parameter	Min.	Typ.	Max.	Unit
Anode Dark Current (after 30 min storage in darkness)	—	1000	—	nA

**NOTE:** Anode characteristics are measured with a voltage distribution ratio shown below

**STANDARD VOLTAGE DIVIDER AND SUPPLY VOLTAGE**

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	P
Ratio	3	1	1	1	1	1	1	1	1	1	1	1

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

**ENVIRONMENTAL TESTING**

Shock.....10 000 m/s<sup>2</sup>, 0.5 ms, 3 impact shocks per direction (6 directions)

Vibration.....300 m/s<sup>2</sup>, 50 Hz to 2000 Hz, 1 oct per minute, 3 sweeps per axis (3 axes)

# PHOTOMULTIPLIER TUBE R1288A

Figure 1: Typical Spectral Response

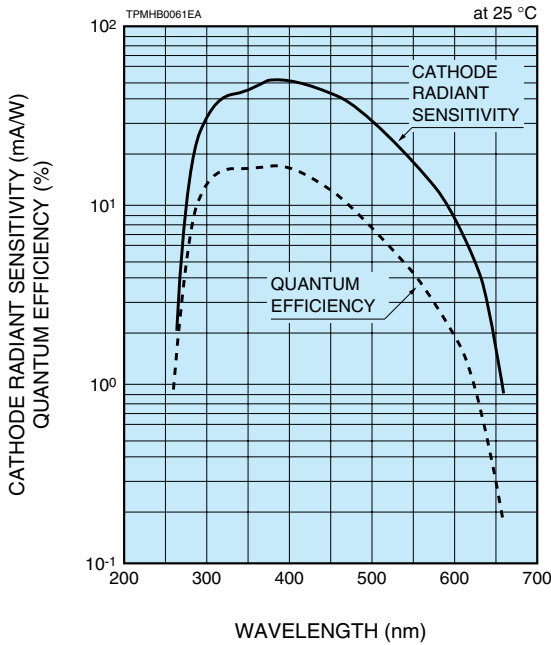


Figure 2: Typical Gain Characteristics

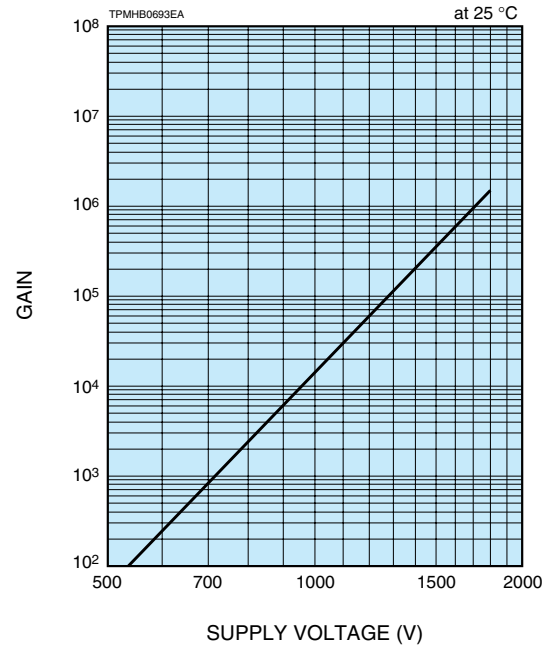
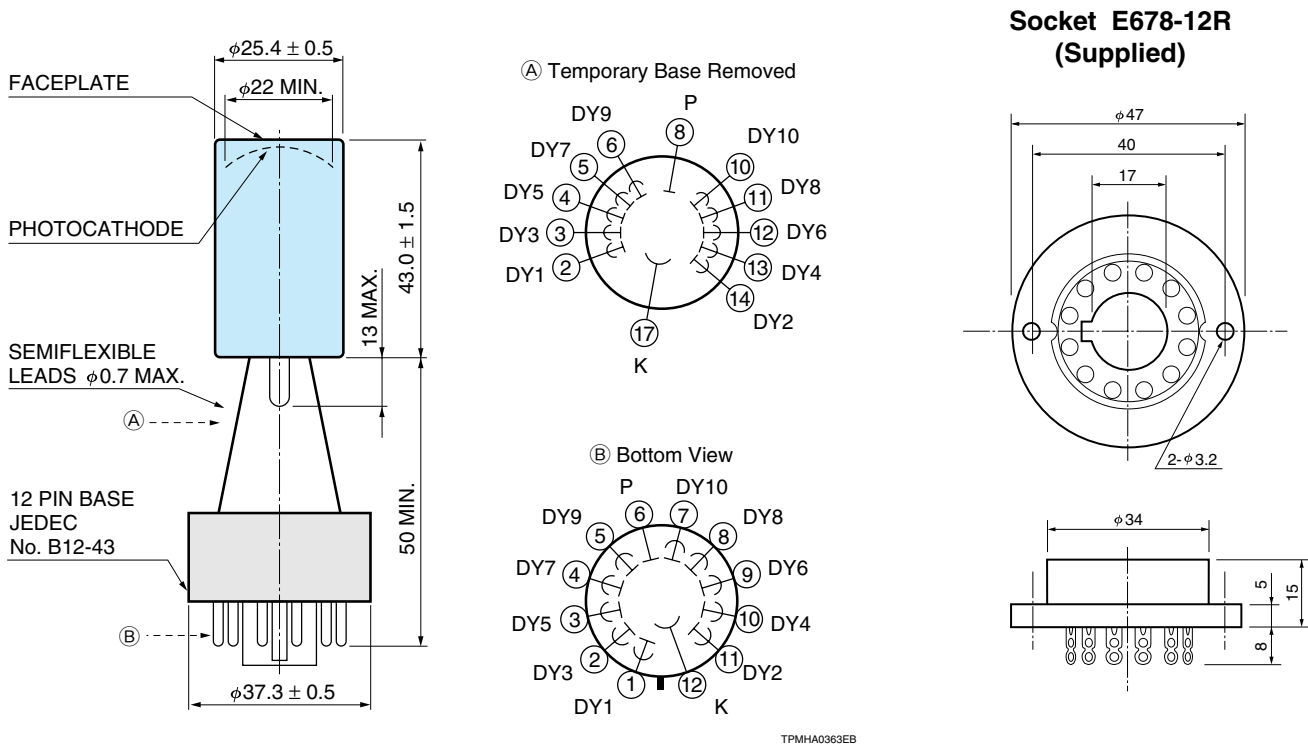


Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)



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