

FEATURES

- High sensitivity
- Low noise

APPLICATIONS

- High energy physics



SPECIFICATIONS

GENERAL

Parameter		Description / Value	Unit
Spectral response		300 to 650	nm
Wavelength of maximum response		400	nm
Window material		Borosilicate glass	—
Photocathode	Material	Super bialkali	—
	Minimum effective area	φ30	mm
Dynode	Structure	Linear-focused	—
	Number of stages	7	—
Base		JEDEC No. B12-43	—
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	1700	V
	Between anode and last dynode	250	V
Average anode current		0.1	mA

CHARACTERISTICS (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit
Cathode sensitivity	Luminous (2856 K)	90	120	—	μA/lm
	Radiant at 400 nm	—	110	—	mA/W
	Blue sensitivity index (CS 5-58)	12.5	14.0	—	—
	Quantum efficiency at 350 nm	32	40	—	%
Anode sensitivity	Luminous (2856 K)	—	4.8	—	A/lm
	Radiant at 400 nm	—	4.4 × 10 ³	—	A/W
Gain		—	4.0 × 10 ⁴	—	—
Anode dark current (After 30 minute storage in darkness)		—	5	20	nA
Time response	Anode pulse rise time	—	2.3	—	ns
	Electron transit time	—	20	—	ns

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	P
Ratio	350 V (ZD)	1	2	1	1	1	2	1	

Supply voltage: 1000 V, K: Cathode, Dy: Dynode, P: Anode, ZD: Zener diode

PHOTOMULTIPLIER TUBE R12992-100

Figure 1: Typical spectral response

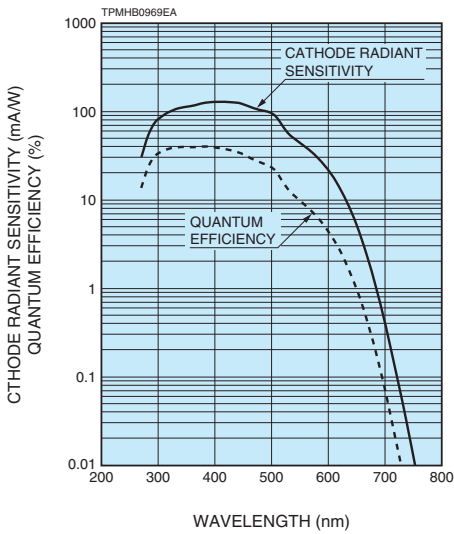


Figure 2: Typical gain

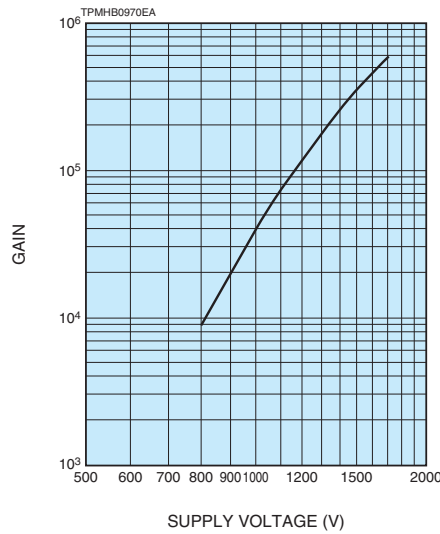


Figure 3: Typical dark current

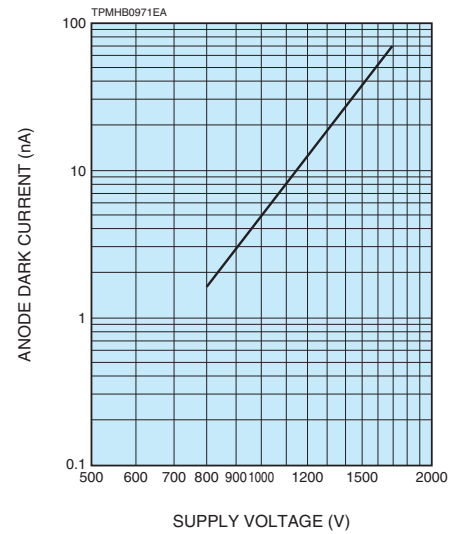
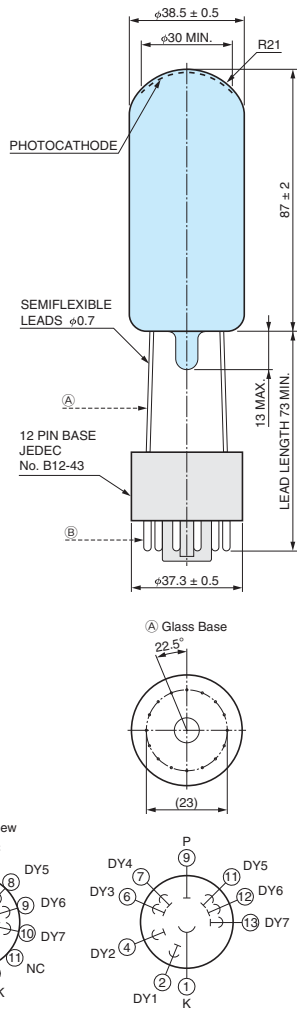


Figure 4: Dimensional outline and basing diagram (Unit: mm)



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