TECHNICAL DATA

DEPT.#22
Oct.2011

PHOTOMULTIPLIER TUBE
R4443 MOD

For Scintillation Counting,
Ruggedized, 14.5 mm Diameter,
Low Noise 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	Low Noise Bialkali	-
	Minimum Effective Area	10	mm dia.
Window Material		Borosilicate glass	-
Dynode	Structure	Linear focused	-
	Number of stages	10	-
Weight (without Base)		Approx. 11	g
Base		12 pin Flying Lead Temporary Base	-
Suitable Socket		E678-12A (supplied)	-

MAXIMUM RATING (Absolute Maximum vales)

Parameter		Value	Unit
Supply voltage	Between Anode and Cathode	1250	V
	Between Anode and Last Dynode	250	V
Average Anode Current		0.1	mA
Ambient Temperature		-80 to +50	^{o}C

CHARACTERISTICS (at 25 ^{o}C) with Standard Voltage Divider

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856 K)	30	50	-	μA/lm
	Quantum Efficiency at 420 nm		18	-	%
	Blue (CS 5-58 filter)	-	6.5	-	-
Anode Sensitivity	Luminous (2856 K)	10	50	-	A/lm
Current Amplification		-	1.0×10^{6}	-	-
Anode Dark Current (after 30 min. storage in darkness)		-	0.5	4	nA
Time Response	Anode Pulse Rise time	-	2.5	-	ns
	Electron Transit Time	-	24	-	ns

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	1	1	1	1	1	1	1	1	1	1	1	1

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

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ENVIRONMENTAL TESTING

Shock:

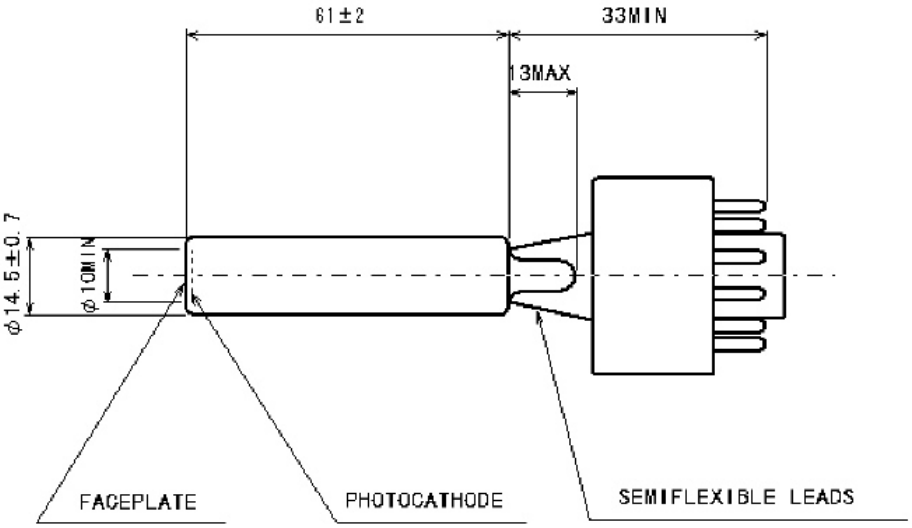
5000 m/s^2 (500 g's), 0.5 ms 3 impact shocks per axis

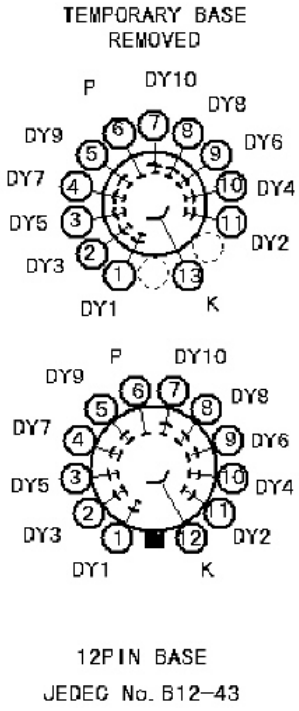
Vibration:

200 m/s^2 (20 g's), 50 to 2000 Hz 90 min. total 1 sweep per axis

*note: Only initial production tubes are tested for these shock and sine vibration tests.

DIMENSIONAL OUTLINE AND BASING DIAGRAM





Unit : mm

NOTES

The material in the R4443 contains beryllium alloy. Please follow the applicable regulations regarding disposal of hazardous materials and industrial wastes in your country,state,region or province.