



## MULTIPLIER PHOTOTUBE

TYPE 6291

Release No. 1162

Type 6291

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## TYPE 6291

The 6291 is a 10 stage multiplier phototube of the end-window type predominately sensitive to visible radiation.

ELECTRICAL DATA

	Min.	Bog.	Max.	(units)
Spectral response		<u>S9</u>		
Cathode luminous sensitivity at <u>210</u> volts, 0 cycles between cathode and all other electrodes	<u>40</u>	<u>60</u>		ua/l
Anode luminous sensitivity <u>105</u> volts/stage, 0 cycles	<u>4</u>	<u>13</u>		A/l
<u>145</u> volts/stage, 0 cycles	<u>28</u>	<u>120</u>		A/l
Wavelength at maximum response	<u>4300</u>	<u>4800</u>	<u>5300</u>	Angstroms
Cathode sensitivity at maximum response at <u>210</u> volts between cathode and all other electrodes		<u><math>3.7 \times 10^{-2}</math></u>		ua/w
Anode dark current at <u>105</u> volts/stage			<u>.05</u>	ua
Interelectrode dark current at <u>105</u> volts/stage			<u>.05</u>	ua
Current amplification at <u>105</u> volts/stage	<u>100,000</u>	<u>215,000</u>		
at <u>145</u>	<u>700,000</u>	<u>2,000,000</u>		
Interelectrode capacitances anode to all other electrodes		<u>3.3</u>		unf
anode to last dynode		<u>1.3</u>		unf

MECHANICAL DATA

Window dimensions	<u>1 1/4</u>			in. Dia.
Seated height to center of window		<u><math>4 \frac{1}{4} \pm \frac{1}{16}</math></u>		
Tube diameter		<u><math>1 \frac{1}{2} \pm \frac{1}{16}</math></u>		
Overall Length		<u><math>4 \frac{3}{4} \pm \frac{1}{4}</math></u>		
Base type	Small shell duodecal 12 pin (B12-43)			

## Mounting position

ANYMAXIMUM RATINGS

	Min.	Bog.	Max.	(units)
Peak cathode current *			<u>20</u>	ua
Average anode current *			<u>5</u>	mA
Peak anode current			<u>25</u>	mA
Average anode dissipation *			<u>0.5</u>	W
Peak anode dissipation			<u>2.5</u>	W

Supply voltage between anode and cathode

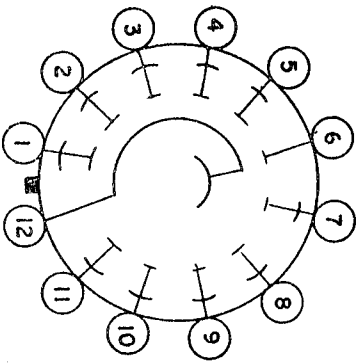
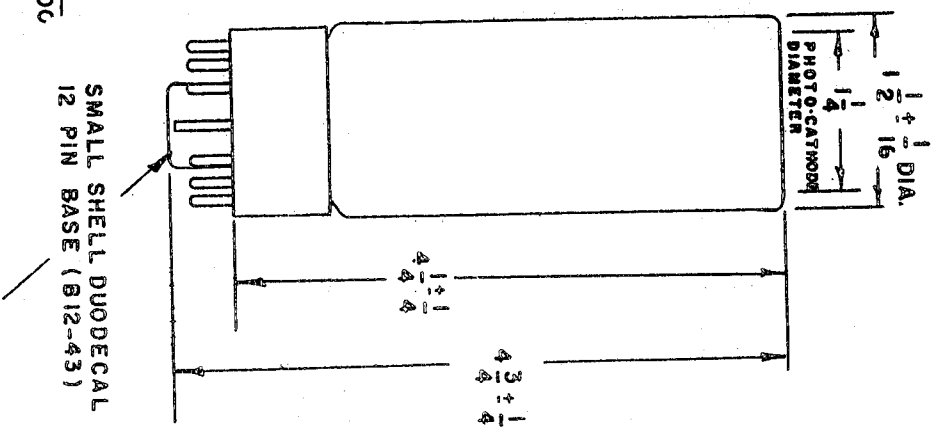
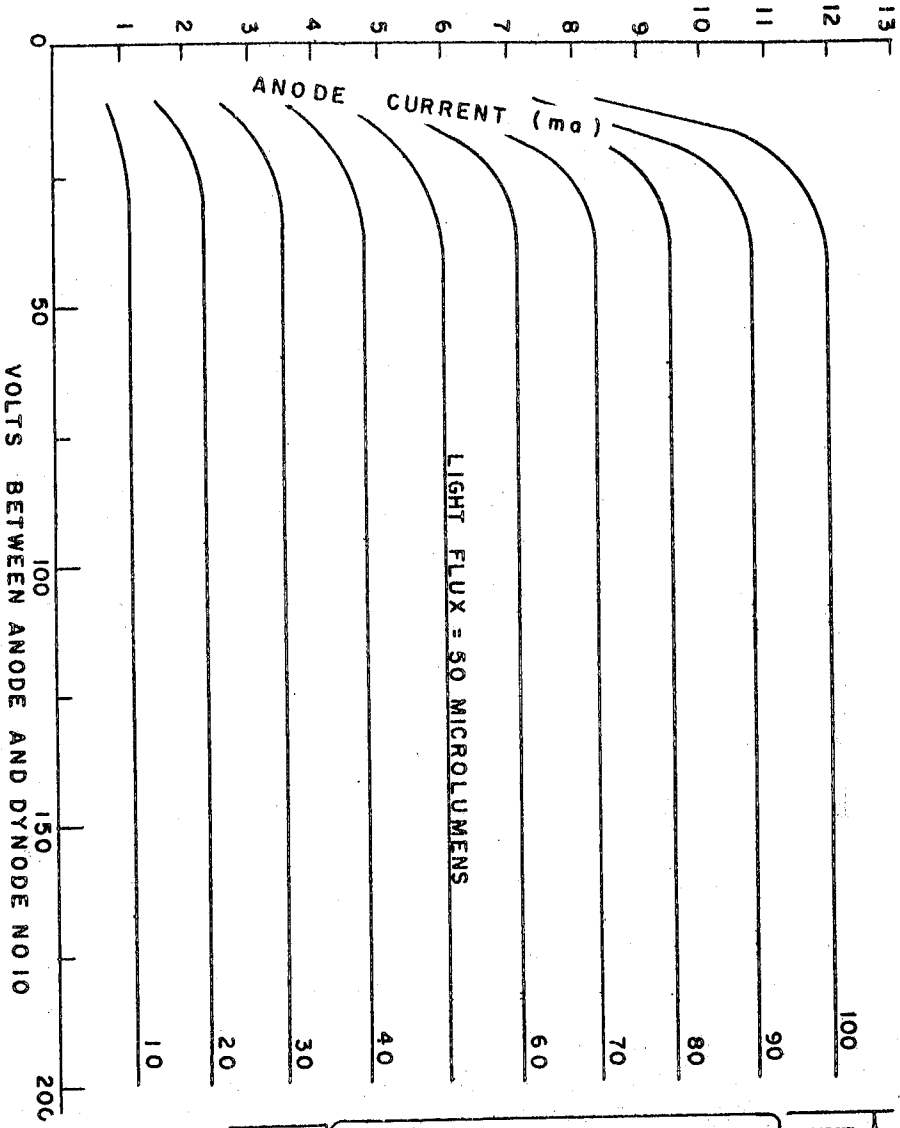
The cathode current given here is that current at which the response of the cathode current ceases to be a linear function of the light intensity because of cathode resistance. In general, the cathode current must be kept well below this value in order to satisfy the maximum ratings on the anode current.

\* Averaged over a 30 second interval maximum.

AVERAGE ANODE CHARACTERISTIC 6291 VOLTAGE / STAGE = 145

PHOTO-MULTIPLIER TUBE  
TYPE 6291

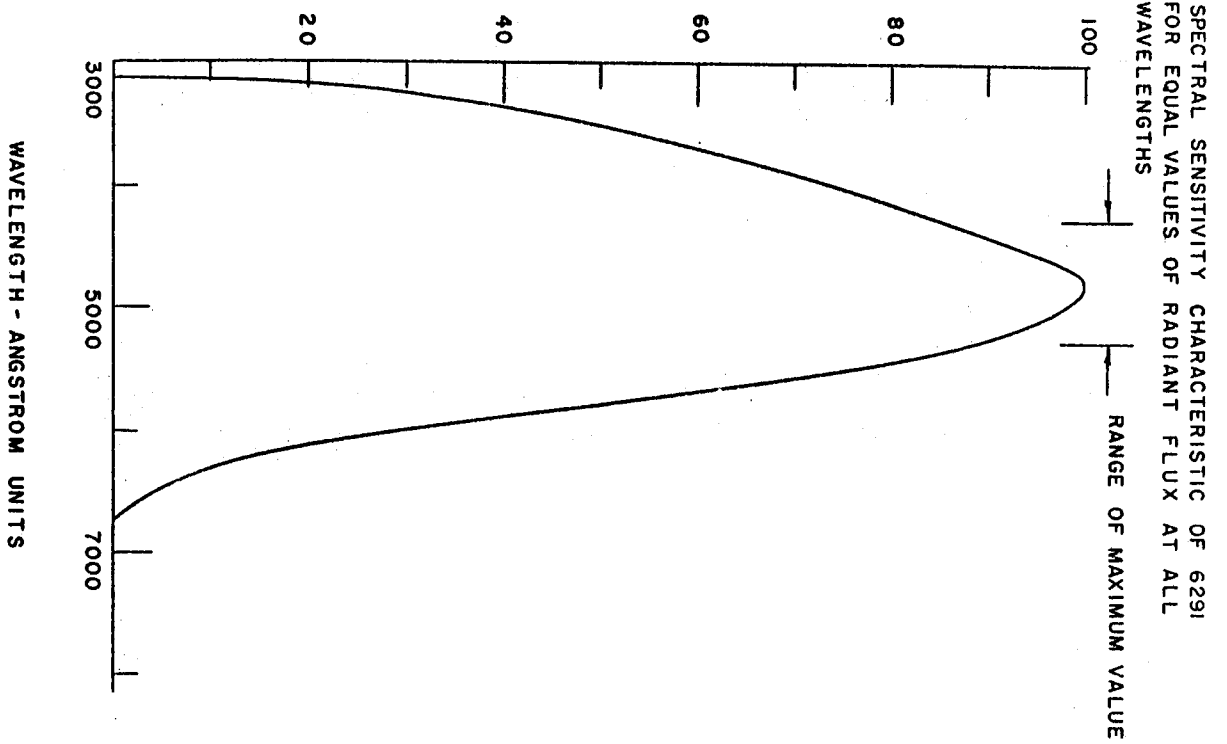
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PIN NO.	ELEMENT
1	DYNODE NO. 1
2	DYNODE NO. 3
3	DYNODE NO. 5
4	DYNODE NO. 7
5	DYNODE NO. 9
6	ANODE
7	DYNODE NO. 10
8	DYNODE NO. 8
9	DYNODE NO. 6
10	DYNODE NO. 4
11	DYNODE NO. 2
12	CATHODE

NOTE: DIRECTION OF LIGHT INTO END OF BULB

RELATIVE SENSITIVITY ARBITRARY UNITS



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