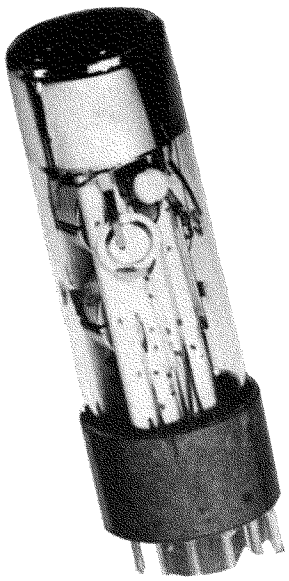
DU MONT

type 6467

Multiplier Phototube



The Du Mont Type 6467 is a 10-stage multiplier phototube of the end-window type with a spectral response predominantly in the visible region (see spectral sensitivity curve). The Type 6467 is 1¼" in diameter.

The Type 6467 features a highly sensitive photocathode with the very high average luminous sensitivity of 60 ua/-lumen. The excellent photo-electron collection has been made optimum by the design of the internally connected shield and photocathode resulting in high signal-to-noise ratios at low light levels.

The large physical separation between the anode and photo-cathode of the Type 6467 is achieved by an arrangement of the silver-magnesium dynodes in linear cascade. This assures a low leakage current because of the long leakage paths in the tube with an appreciable improvement in signal-to-noise ratio.

Stability in the Type 6467 is superior to previous multiplier phototubes owing to the material and construction of the dynodes as well as their arrangement within the tube.

The Type 6467 is particularly useful for applications where space requirements are stringent. The small outside diameter permits the use of a magnetic shield without exceeding 1½" in diameter.

GENERAL CHARACTERISTICS

Electrical

	Min.	Avg.	Max.	(units)
Special response		S4		
Cathode luminous sensitivity at 210 volts, 0 cycles between cathode and all other electrodes	40	60		μA/lumen
Anode luminous sensitivity				
105 volts/stage, 0 cycles	4	13		A/lumen
145 volts/stage, 0 cycles	28	120		A/lumen
Wavelength at maximum response. Cathode sensitivity at maximum response at 210 volts between cathode and all other electrodes	3500	4000	4500	Angstroms
		.056		μA/μW
Anode dark current at 105 volts/stage (25°C)			.05	μA
Interelectrode dark current at 105 volts/stage (25°C)			.05	μA
Current amplification at:				
105 volts/stage	100,000	215,000		
145 volts/stage	700,000	2,000,000		
Interelectrode capacitances				
anode to all other electrodes		3.3		μμf
anode to last dynode		1.3		μμf

Mechanical

	Min.	Avg.	Max.	(units)
Window dimensions	1			in. Dia.
Tube diameter		1-1/4 ± 1/16		in.
Seated height		4 ± 3/16		in.
Overall length		4-1/2 ± 3/16		in.
Base - Small shell duodecal 12 pin (B12-43)				
Mounting position		Any		

Maximum Ratings (Design Center Values)

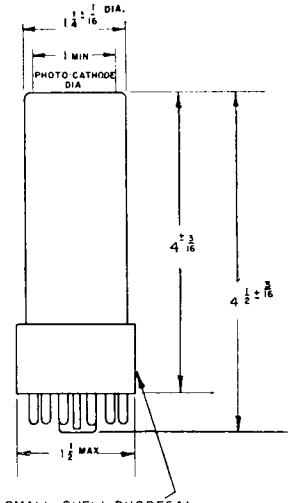
Peak Cathode current (Note 1)	20	μA
Average anode current (Note 2)	5	mA
Peak anode current	25	mA
Average anode dissipation (Note 2)	0.5	W
Peak anode dissipation	2.5	W
Supply voltage between anode and cathode (DC or peak AC)	1800	Volts
Ambient Temperature	75	°C

NOTES

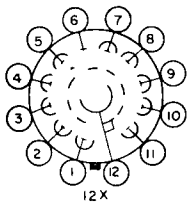
1. The cathode current given here is that current at which the response of the cathode current ceases to be a linear function of the light intensity because of cathode resistance. In general, the cathode current must be kept well below this value in order to satisfy the maximum ratings on the anode current.

2. Averaged over a 30 second interval maximum.

Technical Sales Department
ALLEN B. DU MONT LABORATORIES, INC.
760 Bloomfield Avenue, Clifton, New Jersey



SMALL SHELL DUODECAL
12 PIN BASE (B12-43)



BOTTOM VIEW

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 & SHIELD

NOTE: DIRECTION OF LIGHT INTO END OF BULB.