DUMONT

MULTIPLIER PHOTOTUBE

TYPE K1664

7860

TENTATIVE

The Du Mont Type K1664 is a 10-stage multiplier phototube with a flat end-window type photocathode having an S-11 response. The diameter of this tube is 3/4 inch, making it ideal where space considerations are of major importance. This tube type employs silver magnesium dynodes.

The K1664 is similar to the 6362 except for shorter overall length.

GENERAL CHARACTERISTICS

Electrical Data	Min.	Avg.	Max.	Units
Spectral response		S-11		
Cathode luminous sensitivity at 210 volts, 0 cycles between cathode and all other electrodes	30	50		µA/lumen
Anode luminous sensitivity 105 volts/stage, 0 cycles	3	7.5		A/lumen
Cathode sensitivity at maximum response at 210 volts between cathode and all other electrodes		.045		µA/µW
Anode dark current at 105 volts/stage (25°C)			.05	µA
Current amplification at 105 volts/stage		150,000		
Wavelength at maximum response		4,400 ± 500		Angstroms
Wavelength at 10% of maximum response on long wavelength side		6,125 ± 275		Angstroms
Wavelength at 10% of maximum response on short wavelength side		3,250 ± 250		Angstroms

Mechanical Data		
Window dimensions, minimum	1/2	Inch Dia.
Tube Diameter	3/4 ± 1/32	Inch
Overall Length	3 7/8 ± 1/4	Inches
Base - Resin (potted) flexible leads		
Mounting Position	Any	
Window index of refraction	1.5	

DE-5640
11/11/59

Allen B. Du Mont Laboratories,
Division of Fairchild Camera and Instrument Corp.
Clifton, New Jersey

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MAXIMUM RATINGS

	Min.	Avg.	Max.	Units
Peak cathode current [1]			10	μA
Average anode current [2]			1	mA
Peak anode current			5	mA
Average anode dissipation [2]			0.5	W
Peak anode dissipation			2.0	W
Supply voltage between anode and cathode (DC or peak AC)			1,300	Volts
Supply voltage between last dynode and anode (DC or peak AC)			125	Volts
Supply voltage between cathode and first dynode (DC or peak AC)			250	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.

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FORM 609 M1 3 59 6H

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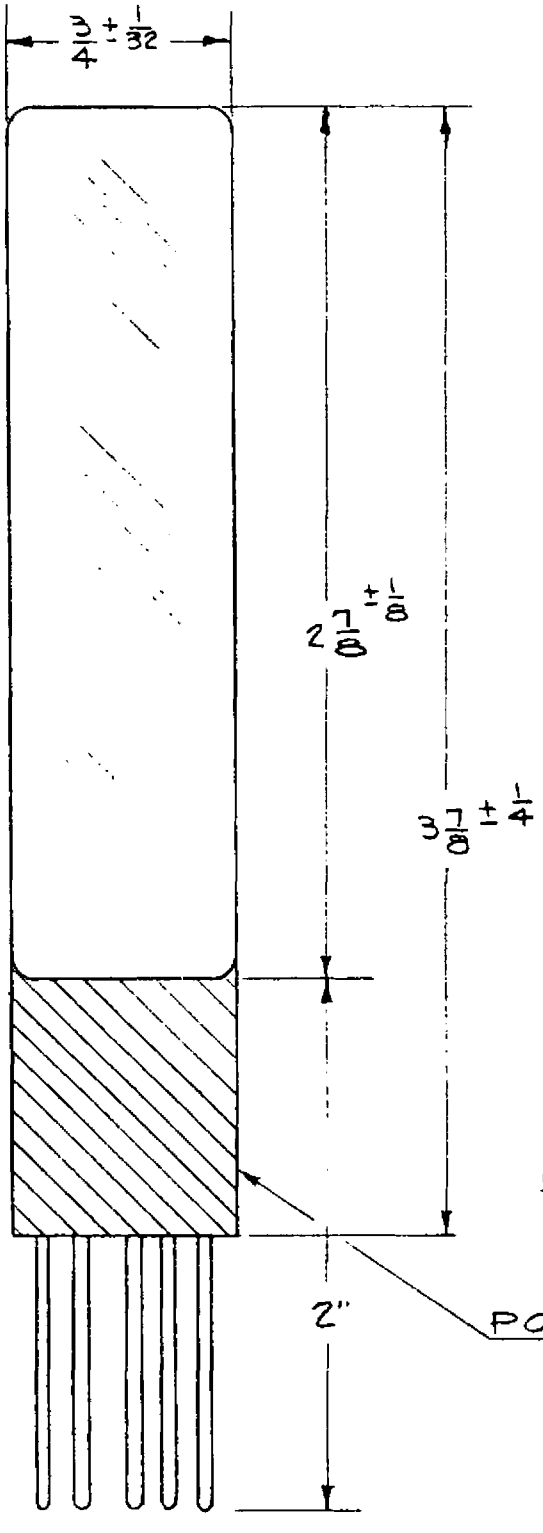
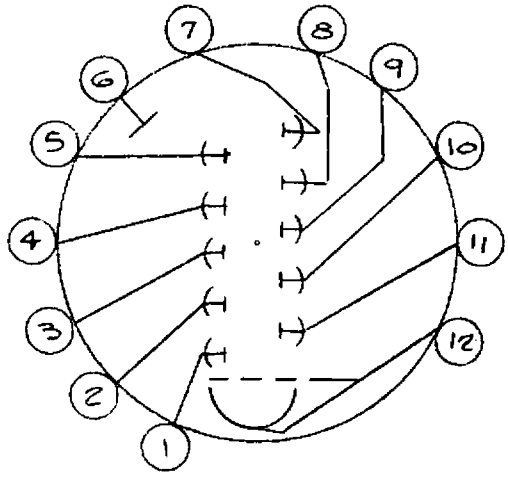
K-1664





BOTTOM VIEW OF BASE

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-FOCUSING ELECTRODE (SHIELD)

NOTE: PINS 1 TO 11 HAVE BLACK INSULATION, PIN 12 HAS RED INSULATION

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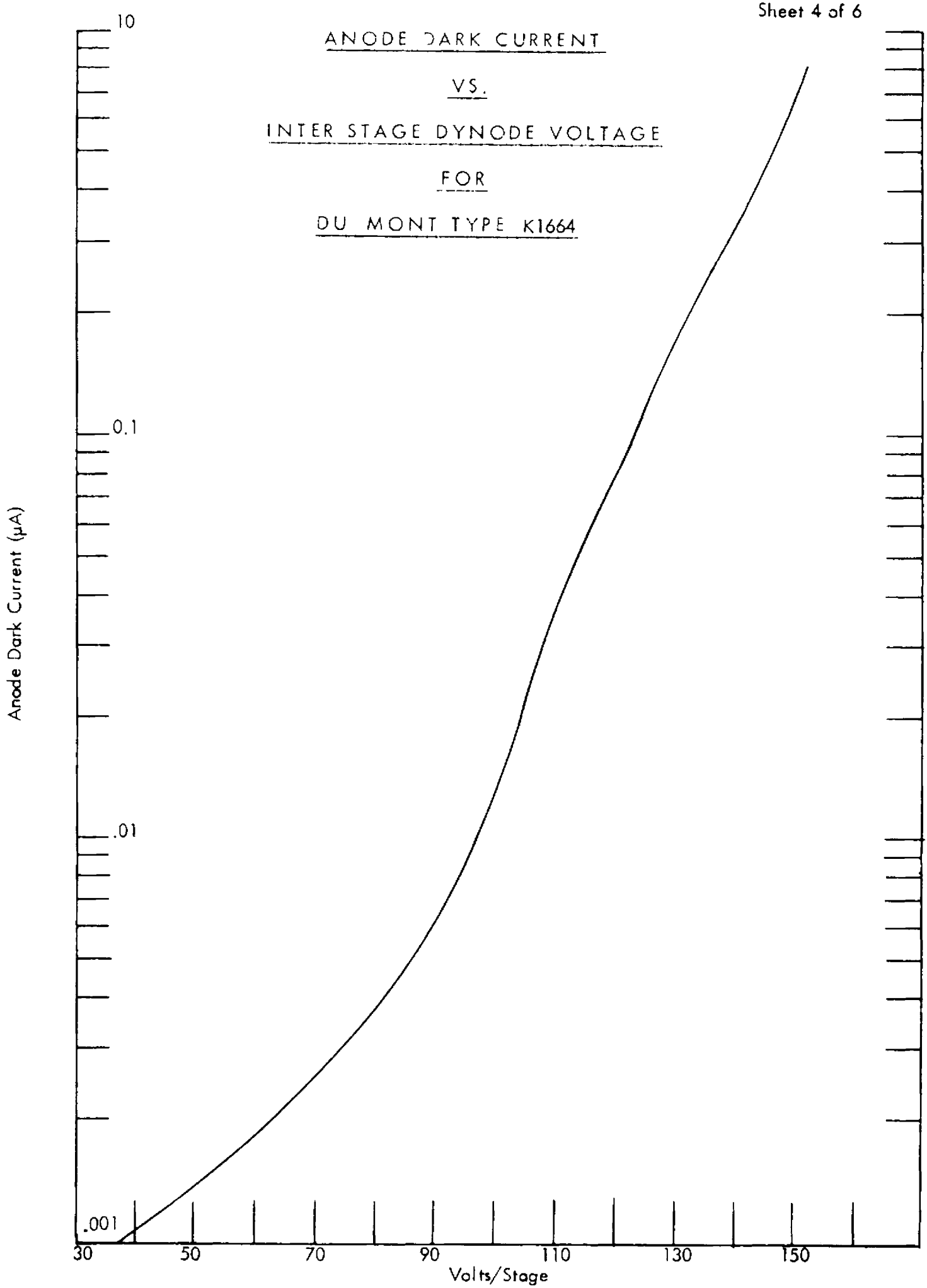
Passaic, New Jersey

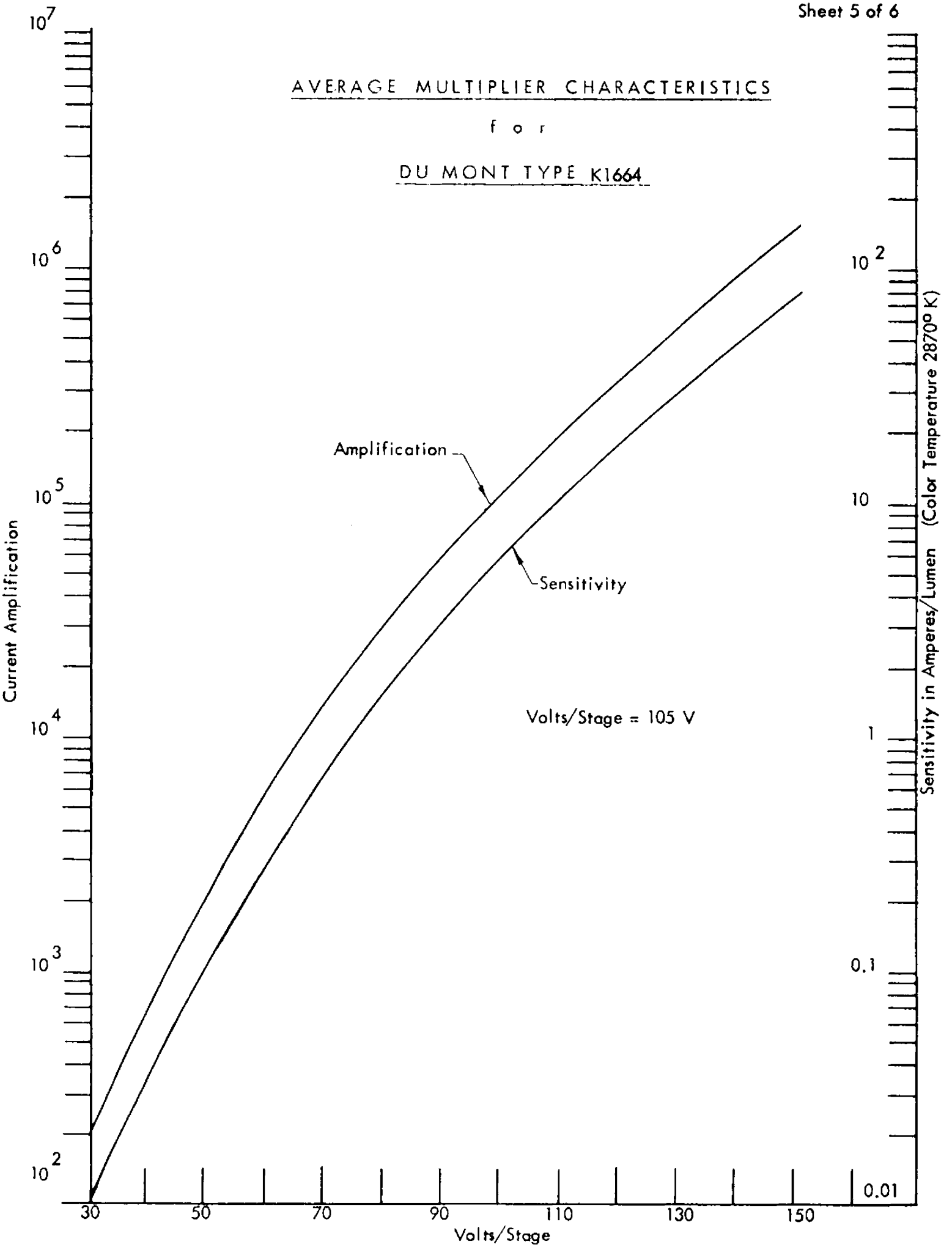
ANODE DARK CURRENT VS. INTER STAGE DYNODE VOLTAGE FOR DU MONT TYPE K1664



AVERAGE MULTIPLIER CHARACTERISTICS

for

DU MONT TYPE K1664



AVERAGE ANODE CHARACTERISTICS

FOR

DU MONT TYPE K1664

Volts/Stage = 105 V