



6326

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VIDICON

600-LINE RESOLUTION

For film pickup

with color or black-and-white TV cameras

DATA

General:

Heater, for Unipotential Cathode:

Voltage $6.3 \pm 10\%$ ac or dc volts

Current 0.6 amp

Direct Interelectrode Capacitance:

Target (Signal electrode) to all
other electrodes. 4.5 μf

Spectral Response See curves

Photoconductive Layer:

Maximum useful diagonal of rectangular
image (4 x 3 aspect ratio). 0.62"Orientation of quality rectangle—Proper orientation is ob-
tained when the horizontal scan is essentially parallel
to the plane passing through the tube axis and short
index pin.

Focusing Method Magnetic

Deflection Method Magnetic

Overall Length $6.25" \pm 0.25"$ Greatest Diameter (Excluding side tip). $1.125" \pm 0.010"$

Maximum Radius (Including side tip) 0.805"

Weight (Approx.) 2 oz

Operating Position. Approx. horizontal, or faceplate up

Bulb. T8

Base Connector. Cinch No. 54A18088, or equivalent

Base. Small-Button Ditetra 8-Pin (JETEC No. E8-11)

Basing Designation for BOTTOM VIEW. 8HL

Pin 1—Heater

Pin 2—Grid No. 1

Pin 3—Grid No. 3

Pin 4—Internal

Connection—
Do Not Use

Pin 5—Grid No. 2

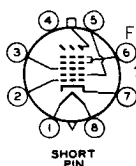
Pin 6—Grid No. 4,
Grid No. 5

Pin 7—Cathode

Pin 8—Heater

Flange—Target (Sig-
nal Electrode)

Short Index Pin—

Internal
Connection—
Do Not UseDIRECTION OF LIGHT:
INTO FACE END OF TUBE

Maximum Ratings, Absolute Values:

For scanned area of $1/2" \times 3/8"$

GRID—No. 5 & GRID—No. 4 VOLTAGE 350 max. volts

GRID—No. 3 VOLTAGE 350 max. volts

GRID—No. 2 VOLTAGE 350 max. volts

See next page.

Indicates a change.



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GRID-No.1 VOLTAGE:

Negative bias value.	125 max.	volts
Positive bias value.	0 max.	volts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode.	125 max.	volts
Heater positive with respect to cathode.	10 max.	volts

DARK CURRENT 0.025 max. μ a

PEAK TARGET (SIGNAL-ELECTRODE) CURRENT 0.5 max. μ a

FACEPLATE:

Illumination	1000 max.	ft-c
Temperature.	60 max.	$^{\circ}$ C

→ Typical Operation:

Grid No.3 connected to grids No.4 and No.5; scanned area of 1/2" x 3/8"; faceplate temperature of 30 $^{\circ}$ to 35 $^{\circ}$ C

Faceplate Illumination:

Average highlight [▲] , for pickup from film.	50 to 300	ft-c
Constant highlight, for pickup from live scenes.	20	ft-c

Maximum Target (Signal-Electrode)

Voltage required to produce dark current of 0.02 μ a in any tube ^{**}	100	volts
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Target (Signal-Electrode) Voltage:†

For pickup from film.	20 to 40	volts
For pickup from live scenes.	40 to 70	volts

Grid-No.5 (Decelerator) and

Grids-No.4 & No.3 (Beam-Focus-Electrodes*) Voltage	250 [®] to 300	volts
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Grid-No.2 (Accelerator) Voltage. 300 volts

Grid-No.1 Voltage for picture cutoff[•]. -45 to -100 volts

Signal-Output Current:*

Peak	0.3 to 0.4	μ a
Average.	0.1 to 0.2	μ a

Dark Current:

For pickup from film.	0.004	μ a
For pickup from live scenes.	0.02	μ a

Average "Gamma" of Transfer

Characteristic for signal-output current between 0.02 μ a and 0.2 μ a	0.65	
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Visual Equivalent Signal-to-Noise

Ratio (Approx.) [°]	300:1	
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Minimum Peak-to-Peak Blanking Voltage:

When applied to grid No.1.	40	volts
When applied to cathode.	10	volts

Field Strength at Center of

Focusing Coil (Approx.).	40	gausses
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Field Strength of Adjustable

Alignment Coil [□]	0 to 4	gausses
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●, ▲, **, †, *, ⊕, ⊙, ®, □: See next page.

→ Indicates a change.



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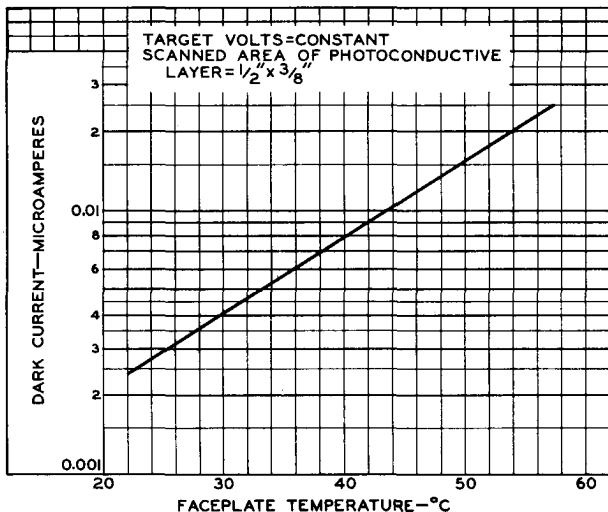
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- ▲ This capacitance, which effectively is the output impedance of the 6326, is increased when the tube is mounted in the deflecting-yoke and focusing-coil assembly. The resistive component of the output impedance is in the order of 100 megohms.
- ▲ Averaged over the time of one TV frame.
- ** The target (signal-electrode) voltage for each 6326 must be adjusted to that value which gives the desired operating dark current.
- † Indicated range for each type of service serves only to illustrate the operating target- (signal-electrode-) voltage range normally encountered.
- * Beam focus is obtained by combined effect of grids-No.4 & No.3 voltage which should be adjustable over indicated range, and a focusing coil having an average field strength of 40 gauss. If desired, grid No.3 may be operated separately to permit vernier control of focus. Under such conditions, the instantaneous grid-No.3 voltage must always be equal to or greater than the grid-No.4 voltage.
- ⊗ Definition, focus uniformity, and picture quality decrease with decreasing grids-No.5 & No.4 & No.3 voltage. In general, grids No.5 & No.4 & No.3 should not be operated below 250 volts.
- With no blanking voltage on grid No.1.
- # Defined as the component of the target (signal-electrode) current after the dark-current component has been subtracted.
- Measured with high-gain, low-noise, cascode-type amplifier having bandwidth of 5 Mc. Because the noise in such a system is predominately of the high-frequency type, the visual equivalent signal-to-noise ratio is taken as the ratio of highlight video-signal current to rms noise current, multiplied by a factor of 3.
- The alignment coil should be located on the tube so that its center is at a distance of 3-11/16 inches from the face of the tube, and be positioned so that its axis is coincident with the axis of the tube, the deflecting yoke, and the focusing coil.

DATA 2

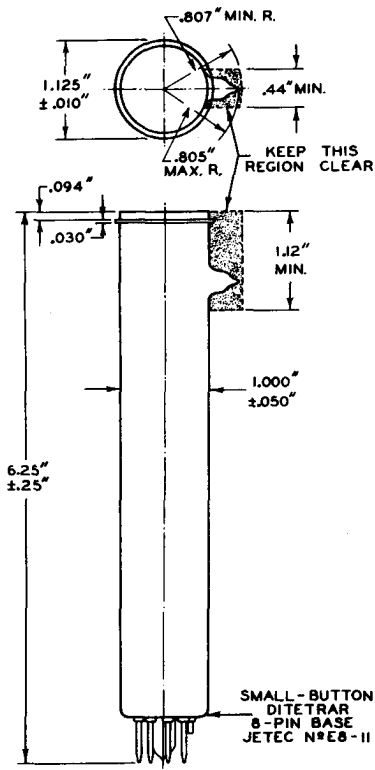
TYPICAL CHARACTERISTIC



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92CS-7772R2



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SPECTRAL-SENSITIVITY CHARACTERISTICS

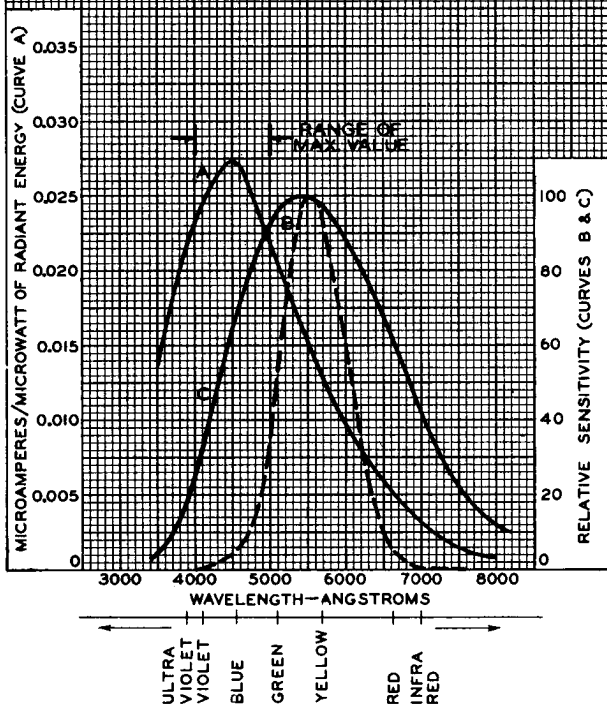
CURVE A: FOR EQUAL VALUES OF SIGNAL-
OUTPUT CURRENT AT ALL WAVELENGTHS.

SIGNAL-OUTPUT MICROAMPERES FROM
SCANNED AREA OF $\frac{1}{2}'' \times \frac{3}{8}'' = 0.02$

DARK CURRENT (MICROAMPERES) = 0.02

CURVE B: SPECTRAL CHARACTERISTIC OF
AVERAGE HUMAN EYE.

CURVE C: FOR EQUAL VALUES OF SIGNAL-
OUTPUT CURRENT WITH RADIANT
FLUX FROM TUNGSTEN SOURCE
AT 2870° K.

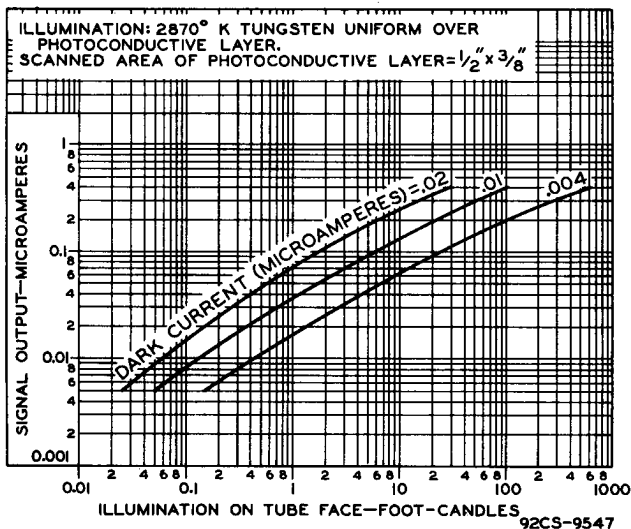


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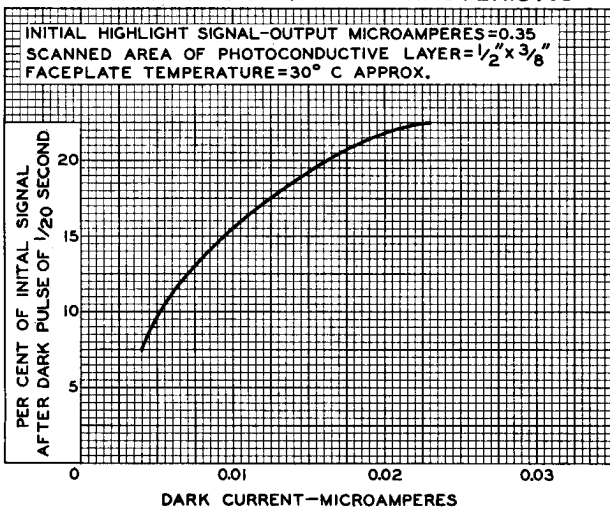


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TYPICAL LIGHT-TRANSFER CHARACTERISTICS



TYPICAL PERSISTENCE CHARACTERISTIC



ELECTRON TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

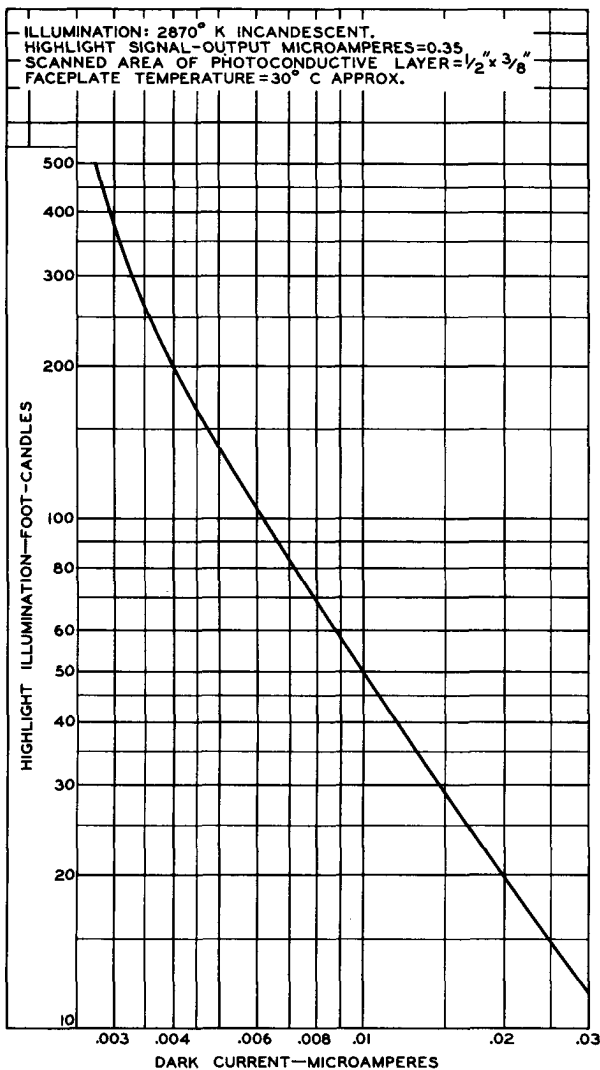
92CS-9550



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TYPICAL CHARACTERISTIC



DARK CURRENT—MICROAMPERES

ELECTRON TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

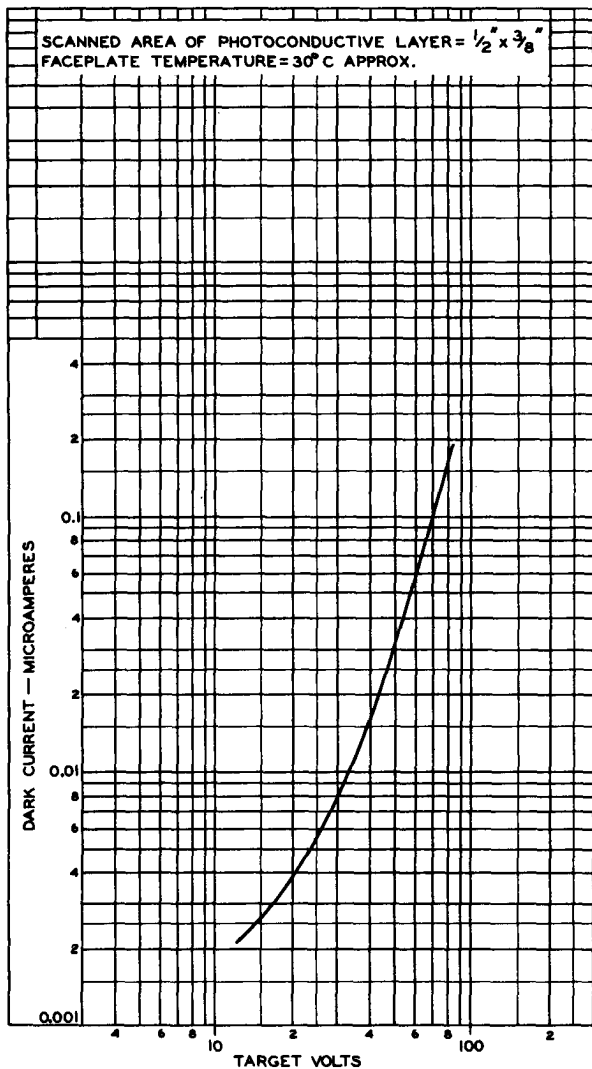
92CM-9545

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TYPICAL DARK-CURRENT CHARACTERISTIC





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TYPICAL CHARACTERISTICS

HIGHLIGHT SIGNAL-OUTPUT MICROAMPERES=0.3
DARK CURRENT (MICROAMPERES)=0.004
SCANNED AREA OF PHOTOCONDUCTIVE LAYER= $\frac{1}{2} \times \frac{3}{8}$ "
CURVE A: TARGET VOLTAGE REQUIRED TO MAINTAIN
DARK CURRENT OF 0.004 μ A.
CURVE B: 2870° K INCANDESCENT ILLUMINATION
REQUIRED TO PRODUCE SIGNAL-OUTPUT
CURRENT OF 0.3 μ A.

