



6326-A VIDICON

600-LINE RESOLUTION

For film and live pickup

with color or black-and-white TV cameras

6326-A

The 6326-A is an improved version of the 6326 and is unilaterally interchangeable with it.

DATA

General:

Heater, for Unipotential Cathode:

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

Current 0.6 amp

Direct Interelectrode Capacitance: ↓

Signal electrode to
all other electrodes. 4.5 μmf

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 obtained when the horizontal scan is essentially parallel to the straight sides of the masked portions of the faceplate. The straight sides are parallel to the plane passing through the tube axis and short index pin. The masking is for orientation only and does not define the proper scanned area of the photoconductive layer.

Focusing Method Magnetic

Deflection Method Magnetic

Overall Length. $6\frac{1}{4}'' \pm \frac{1}{4}''$

Greatest Diameter $1.125'' \pm 0.010''$

Weight (Approx.). 2 oz

Operating Position. Approx. horizontal, or faceplate up

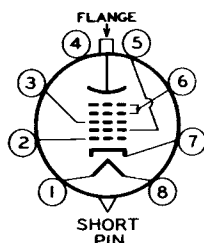
Bulb. T-8

Base Connector. Cinch No. 54A18088, or equivalent

Base. Small-Button Ditetrar 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—Signal
Electrode
- Short Index Pin—
Internal
Connection—
Make No
Connection

Maximum Ratings, Absolute Values:

SIGNAL-ELECTRODE VOLTAGE. 100 max. volts

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

↓ This capacitance, which effectively is the output impedance of the 6326-A, is increased by about 3 μmf 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.



6326-A

VIDICON

GRID-No.3 VOLTAGE	350 max.	volts
GRID-No.2 VOLTAGE	350 max.	volts
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
FACEPLATE:		
Illumination.	1000 max.	ft-c
Temperature	60 max.	°C

Typical Operation with Static Focusing:

*Grid No.3 connected to grids No.4 and No.5;
scanned area of 1/2" x 3/8"*

Faceplate Illumination:		
Average highlight [▲] , for		
pickup from film.	50 to 300	ft-c
Constant highlight,		
for pickup from limited-		
motion live scenes.	20	ft-c
Signal-Electrode Voltage:		
For pickup from film.	20 to 40	volts
For pickup from limited-motion		
live scenes	40 to 70	volts
Grid-No.5 (Decelerator) and		
Grids-No.4 & No.3 (Beam-Focus		
Electrodes*) Voltage.	200 to 300	volts
Grid-No.2 (Accelerator) Voltage	300	volts
Grid-No.1 Voltage for		
Picture Cutoff [●]	-45 to -100	volts
Highlight Signal-Electrode Current.	0.3 to 0.4	μamp
Average Signal-Output Current [#]	0.1 to 0.2	μamp
Peak Signal-Output Current.	0.3 to 0.4	μamp
Maximum Dark Current:		
For pickup from film.	0.004	μamp
For pickup from limited-motion		
live scenes	0.02	μamp
Average "Gamma" of Transfer		
Characteristic for signal-output		
current between 0.02 μamp and		
0.2 μamp.	0.65	
Visual Equivalent Signal-to-Noise		
Ratio (Approx.) [○]	300:1	
Minimum Peak-to-Peak Blanking Voltage:		
When applied to grid No.1	40	volts
When applied to cathode	10	volts
Field Strength of Adjustable		
Alignment Coil.	0 to 4	gausses

▲, *, ●, #, ○: See next page.



6326-A

VIDICON

6326-A

Typical Operation with Dynamic Focusing:

*Grid No.3 used separately as Dynamic Focusing Electrode;
scanned area of 1/2" x 3/8"*

Values are the same as those shown for *Typical Operation with Static Focusing* except as follows:

Grid-No.5 (Decelerator) and Grid-No.4 (Beam-Focus Electrode**) Voltage	200 to 300	volts
Grid-No.3 (Dynamic-Focus Electrode**) Voltage:		
DC value	140 to 240	volts
Peak-to-peak value (Approx.)	60	volts

▲ Averaged over the time of one TV frame.

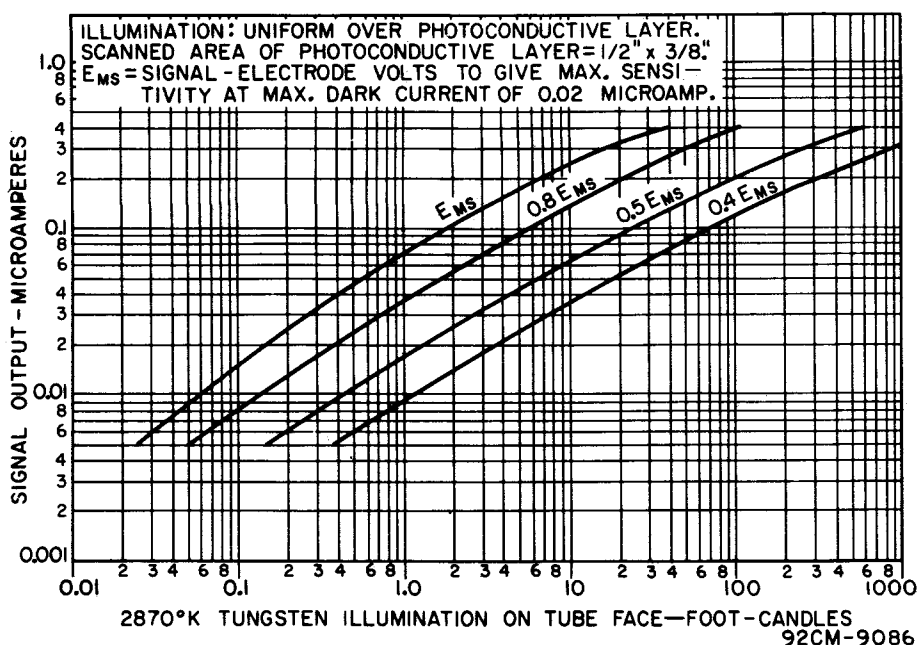
* Beam focus is obtained by combined effect of grids-No.4 & No.3 voltage which should be adjustable over indicated range, and a focusing coil having an average field strength of 40 gaussess.

● With no blanking voltage on grid No.1.

Defined as the component of the signal-electrode current after the dark-current component has been subtracted.

o For amplifier system of the low-noise cascode type having 8-Mc bandwidth. 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.

** Static beam focus is obtained by combined effect of grid-No.4 voltage which should be adjustable over indicated range, and a focusing coil having an average field strength of 40 gaussess. Dynamic beam focus to give improved edge focus is supplementary to static beam focus and is accomplished by adjusting the dc grid-No.3 voltage to a value about 60 volts lower than that of grid No.4 and by applying to grid No.3 an ac voltage having parabolic waveform.

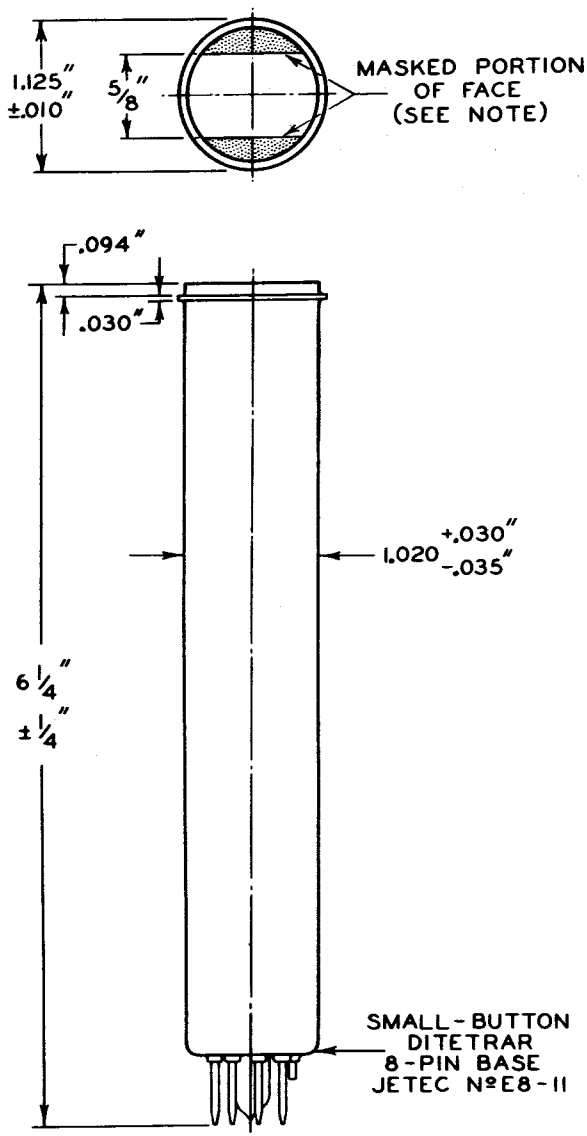
TYPICAL LIGHT TRANSFER CHARACTERISTICS

6326-A



6326-A

VIDICON



92CS-9081

NOTE: STRAIGHT SIDES OF MASKED PORTIONS ARE PARALLEL TO THE PLANE PASSING THROUGH TUBE AXIS AND SHORT INDEX PIN.

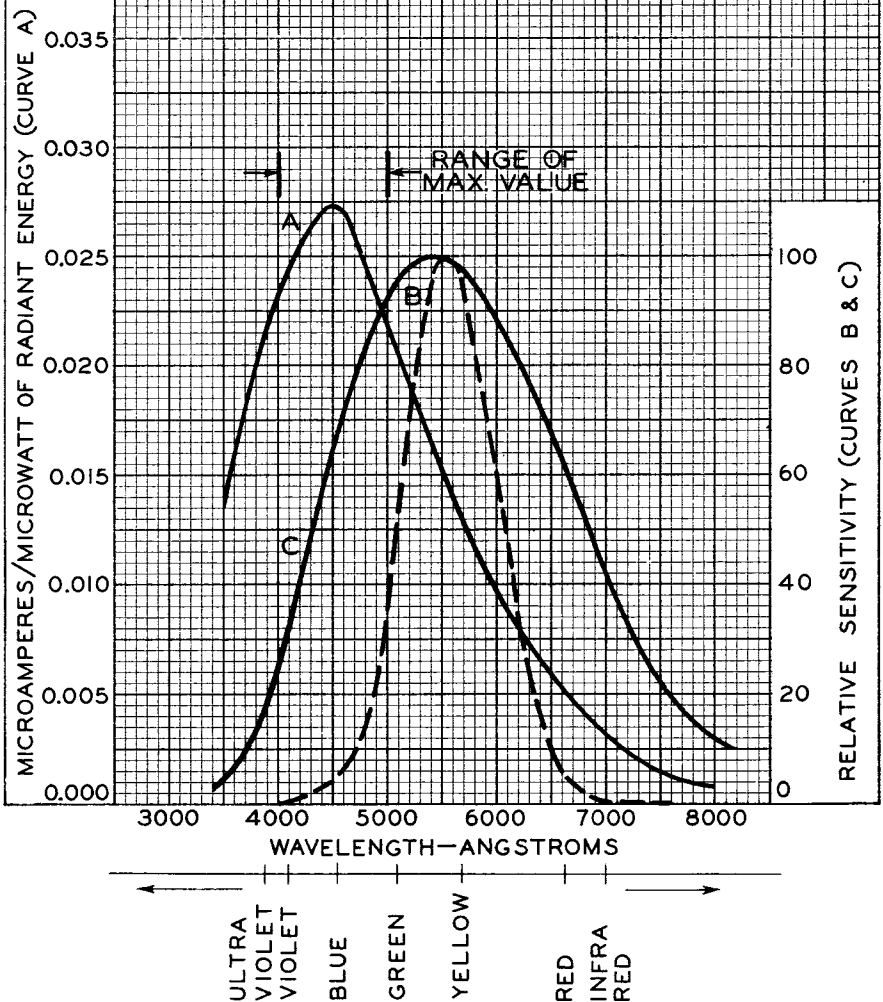


6326-A

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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 $\frac{1}{2}'' \times \frac{3}{8}'' = 0.02$
- 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

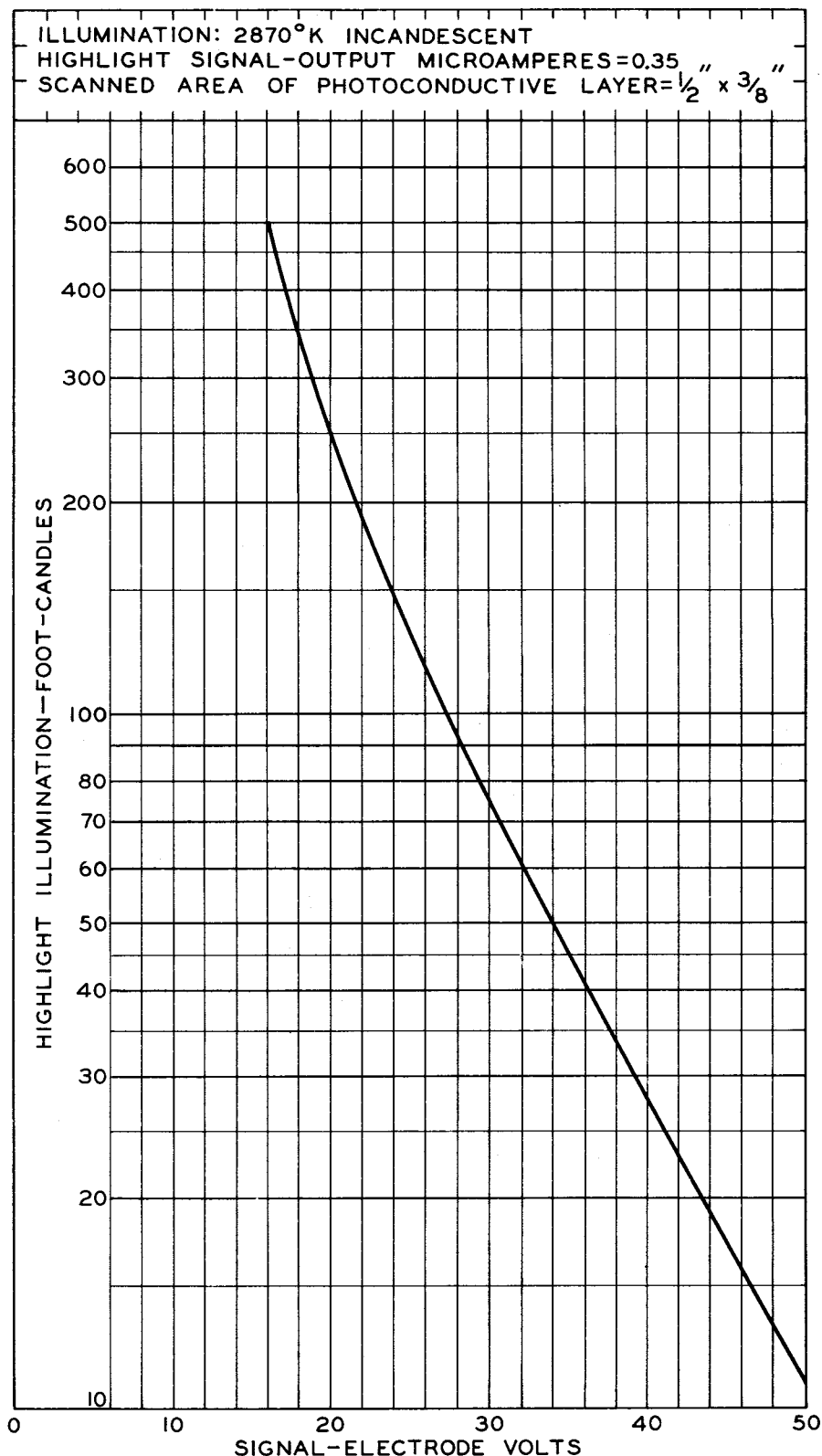


6326-A



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TYPICAL CHARACTERISTIC



TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

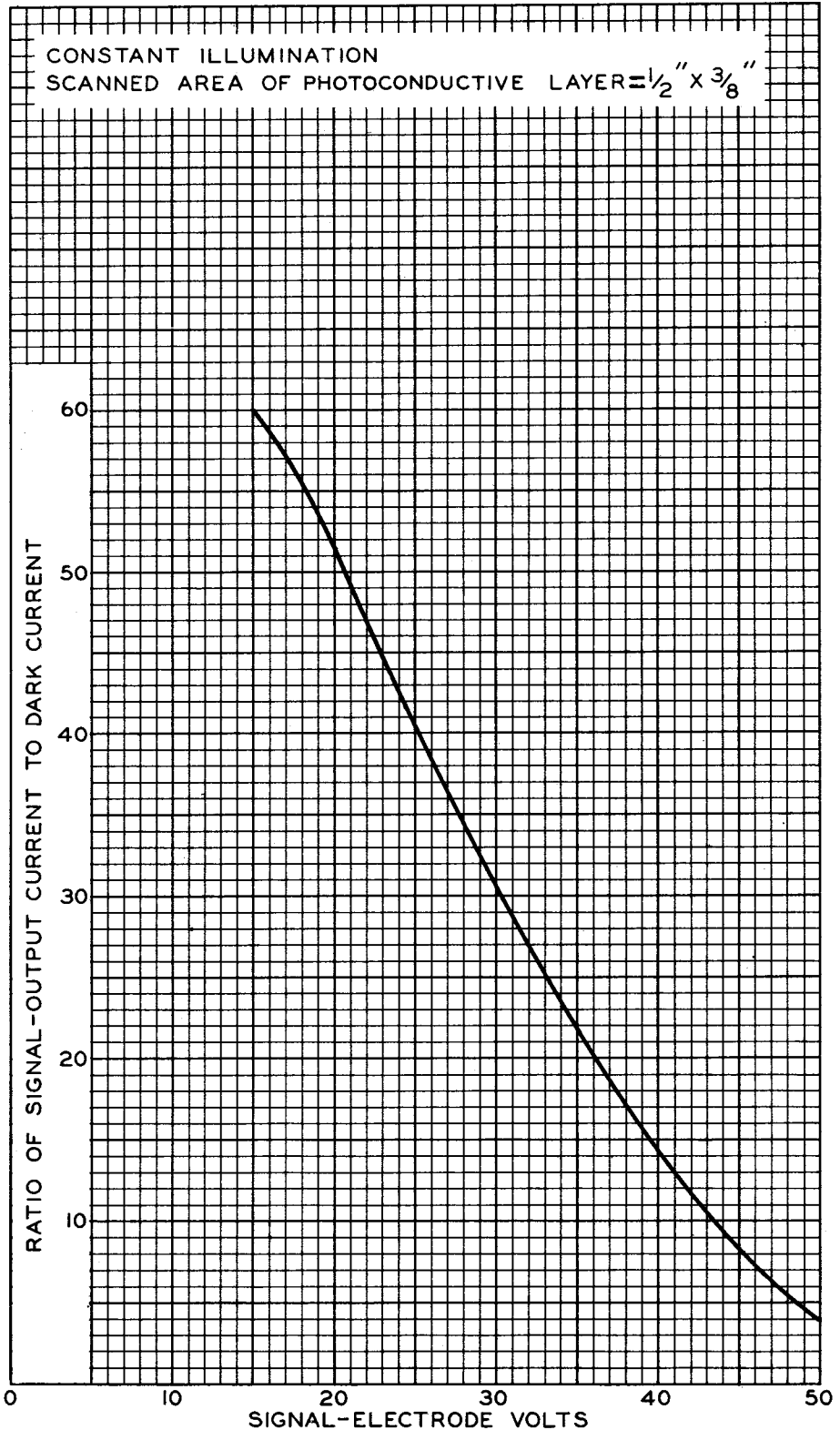
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6326-A

6326-A

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6326-A



6326-A

PERSISTENCE CHARACTERISTIC

