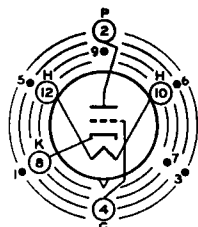


2EG4

HIGH-MU TRIODE

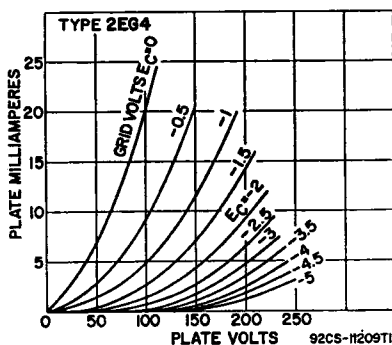
Nuvistor type used as a grounded-cathode, neutralized rf amplifier in vhf tuners of television and FM receivers. Outlines section, 1; requires nuvistor socket.



INDEX—LARGE LUG
●—SHORT PIN—IC

12AQ

Heater Voltage (ac/dc)	1.7	volts
Heater Current	0.6	ampere
Heater Warm-up Time (Average)	8	seconds
Peak Heater-Cathode Voltage	±100	volts



Direct Interelectrode Capacitances (Approx.):

Grid to Plate	0.92	pF
Grid to Cathode, Heater, and Shell	4.3	pF
Plate to Cathode, Heater, and Shell	1.8	pF
Plate to Cathode	0.18	pF
Heater to Cathode	1.6	pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Supply Voltage	300*	volts
Plate Voltage	135	volts
Grid Voltage:		
Negative-bias value	55	volts
Peak or dc positive value	0	volts
Plate Dissipation	1.5	watts
Cathode Current	15	mA

CHARACTERISTICS AND TYPICAL OPERATION

	Characteristics	Typical Operation	
Plate Supply Voltage	110	70	volts
Grid Supply Voltage	—	0	volts
Cathode-Bias Resistor	130	—	ohms
Grid Resistor	—	47000	ohms
Amplification Factor	63	68	
Plate Resistance (Approx.)	7000	5440	ohms
Transconductance	9000	12500	μmhos
Grid Voltage (Approx.) for plate current of 100 μA	—5	—	volts
Grid Voltage (Approx.) for plate current of 10 μA	—6.8	—	volts
Plate Current	6.5	7	mA

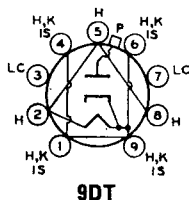
MAXIMUM CIRCUIT VALUES

Grid-Circuit Resistance:*		
For fixed-bias operation	2.2	megohms
For cathode-bias operation	0.5	megohm

* A plate supply voltage of 300 volts may be used provided that a sufficiently large resistor is used in the plate circuit to limit the plate dissipation to 1.5 watts under any condition of operation.

▪ For operation at metal-shell temperatures up to 135° C.

Refer to chart at end of section.	2EN5
Refer to chart at end of section.	2ER5
Refer to type 6FH5.	2FH5
Refer to chart at end of section. For replacement use type 2GK5/2FQ5A.	2FQ5A
Refer to type 6FS5.	2FS5
Refer to chart at end of section.	2GK5
Refer to type 6GK5.	2GK5/2FQ5A
Refer to chart at end of section. For replacement use type 2FS5.	2GU5
For replacement use type 2HM5/2HA5.	2HA5
Refer to type 6HM5/6HA5.	2HM5/2HA5
Refer to type 6HQ5.	2HQ5
Refer to chart at end of section.	3A2



**HALF-WAVE
VACUUM RECTIFIER**

3A2A

Miniature type used in high-voltage rectifier circuits of small-screen black-and-white television receivers. **Outlines section, 7A**; requires miniature 9-contact socket. Socket terminals 1, 3, 4, 6, and 7 may be connected to terminal 9 or to a corona shield which connects to terminal 9. Terminals 3 and 7 may be used as tie points

at or near cathode potential. For high-voltage and X-ray safety considerations, refer to page 93.

Heater Voltage (ac/dc)	3.15	volts
Heater Current	0.22	ampere
Direct Interelectrode Capacitances:		
Plate to Cathode, Heater, and Internal Shield	1	pF

Pulsed Rectifier

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Ratings)

Peak Inverse Plate Voltage#	20000●	volts
Peak Plate Current	80	mA
Average Plate Current	1.5	mA
Heater Voltage:		
Absolute-maximum value	3.65	volts
Absolute-minimum value	2.65	volts

CHARACTERISTIC, Instantaneous Value

Tube Voltage Drop for plate current of 7 mA	70	volts
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X-RADIATION CHARACTERISTIC

X-Radiation, Maximum:		
Statistical value controlled on a lot sampling basis	0.5	mR/hr

Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

● The dc component must not exceed 18000 volts.

Caution—Operation of this tube outside of the maximum values indicated above may result in either temporary or permanent changes in the X-radiation characteristic of the tube. Equipment design must be such that these maximum values are not exceeded.