

6DS4

High-Mu Triode

NUVISTOR TYPE

HAVING EXTENDED CUTOFF CHARACTERISTIC

For Use as Grounded-Cathode, Neutralized RF-Amplifier
Tube in Tuners of VHF Television and FM Receivers
Featuring Improved Weak-Signal-Area Reception

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC). 6.3 ± 0.6 volts

Current at heater volts = 6.3 0.135 amp

Peak heater-cathode voltage:

Heater negative with
respect to cathode. 100 max. volts

Heater positive with
respect to cathode. 100 max. volts

Direct Interelectrode Capacitances (Approx.):

Grid to plate 0.92 μf

Grid to cathode, shell, and heater. 4.3 μf

Plate to cathode, shell, and heater 1.8 μf

Plate to cathode. 0.18 μf

Heater to cathode 1.6 μf

Characteristics, Class A₁ Amplifier:

Plate Supply Voltage. 110 volts

Grid Supply Voltage 0 volts

Cathode Resistor. 130 ohms

Amplification Factor. 63

Plate Resistance (Approx.). 7000 ohms

Transconductance. 9000 μmhos

Plate Current 6.5 ma

Grid Voltage (Approx.) for plate $\mu\text{a} = 100$ -5 volts

Grid Voltage (Approx.) for plate $\mu\text{a} = 10$ -6.8 volts

Mechanical:

Operating Position. Any

Type of Cathode Coated Unipotential

Maximum Overall Length. 0.800"

Maximum Seated Length 0.625"

Maximum Diameter. 0.440"

Envelope. Metal Shell MT4

Socket. Cinch Mfg. Corp. No. 133 65 10 001, ←

Industrial Electronic Hardware Co. No. Nu 5044

or No. Nu 5060, or equivalent

Base. Medium Ceramic-Wafer Twelvar 5-Pin (JEDEC No. E5-65)

← Indicates a change.



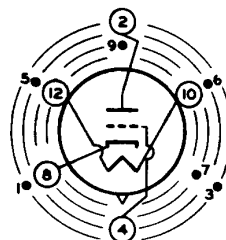
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DATA I
1-63

6DS4

Basing Designation for BOTTOM VIEW. 12AQ

- Pin 1^a - Do Not Use
- Pin 2 - Plate
- Pin 3 - Same as Pin 1
- Pin 4 - Grid
- Pin 5 - Same as Pin 1
- Pin 6 - Same as Pin 1
- Pin 7 - Same as Pin 1
- Pin 8 - Cathode
- Pin 9 - Same as Pin 1
- Pin 10 - Heater
- Pin 12 - Heater



INDEX-LARGE LUG
●=SHORT PIN

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

PLATE SUPPLY VOLTAGE.	300 ^b max.	volts
PLATE VOLTAGE	135 max.	volts
GRID VOLTAGE:		
Negative-bias value	55 max.	volts
Peak-positive value	0 max.	volts
CATHODE CURRENT	15 max.	ma
→ PLATE DISSIPATION:		
With a minimum series plate-circuit		
resistance of 5000 ohms	1.5 max.	watts
For lower values of series plate-		
circuit resistance.	See accompanying <i>Plate-</i>	
	<i>Dissipation-Rating Chart</i>	

Typical Operation:

Plate Voltage	70	volts
Grid Supply Voltage	0	volts
Grid Resistor	47000	ohms
Amplification Factor.	68	
Plate Resistance (Approx.)	5440	ohms
Transconductance.	12500	μmhos
→ Plate Current	7	ma

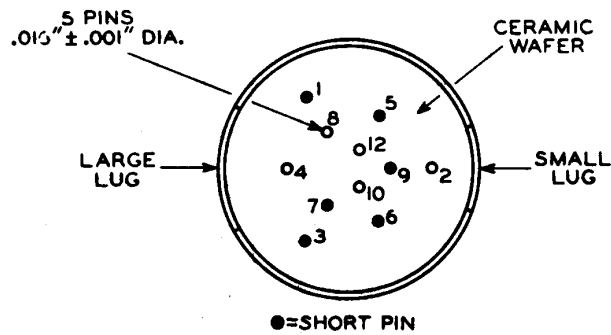
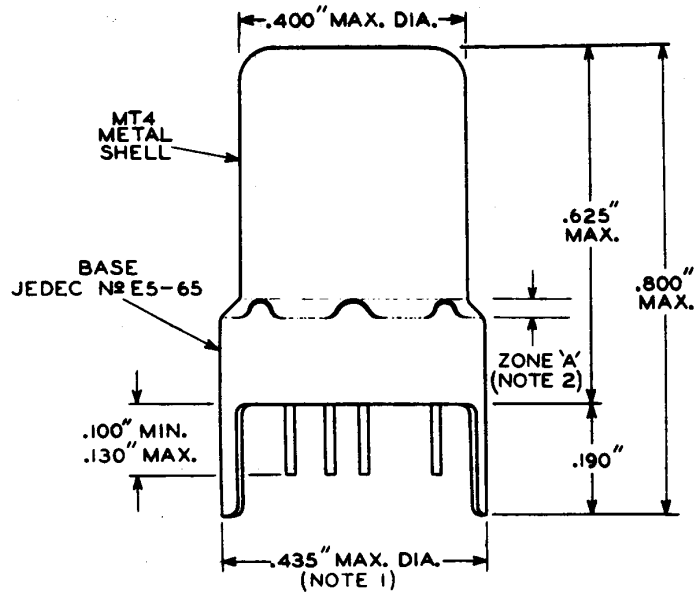
Maximum Circuit Values:

Grid-Circuit Resistance: ^c		
For fixed-bias operation.	0.5 max.	megohm
For cathode-bias operation.	2.2 max.	megohms

- ^a Pin is of a length such that its end does not touch the socket insertion plane.
 - ^b A plate supply voltage of 300 volts may be used provided sufficient plate-circuit resistance and agc voltage are used to limit the voltage at the plate of the tube to 135 volts under conditions of maximum-rated plate dissipation (1.5 watts).
 - ^c For operation at metal-shell temperatures up to 135° C.
- Indicates a change.



6DS4



92CS-10970R3

NOTE 1: MAXIMUM OUTSIDE DIAMETER OF 0.440" IS PERMITTED ALONG 0.190" LUG LENGTH.

NOTE 2: SHELL TEMPERATURE SHOULD BE MEASURED IN ZONE "A" BETWEEN BROKEN LINES.

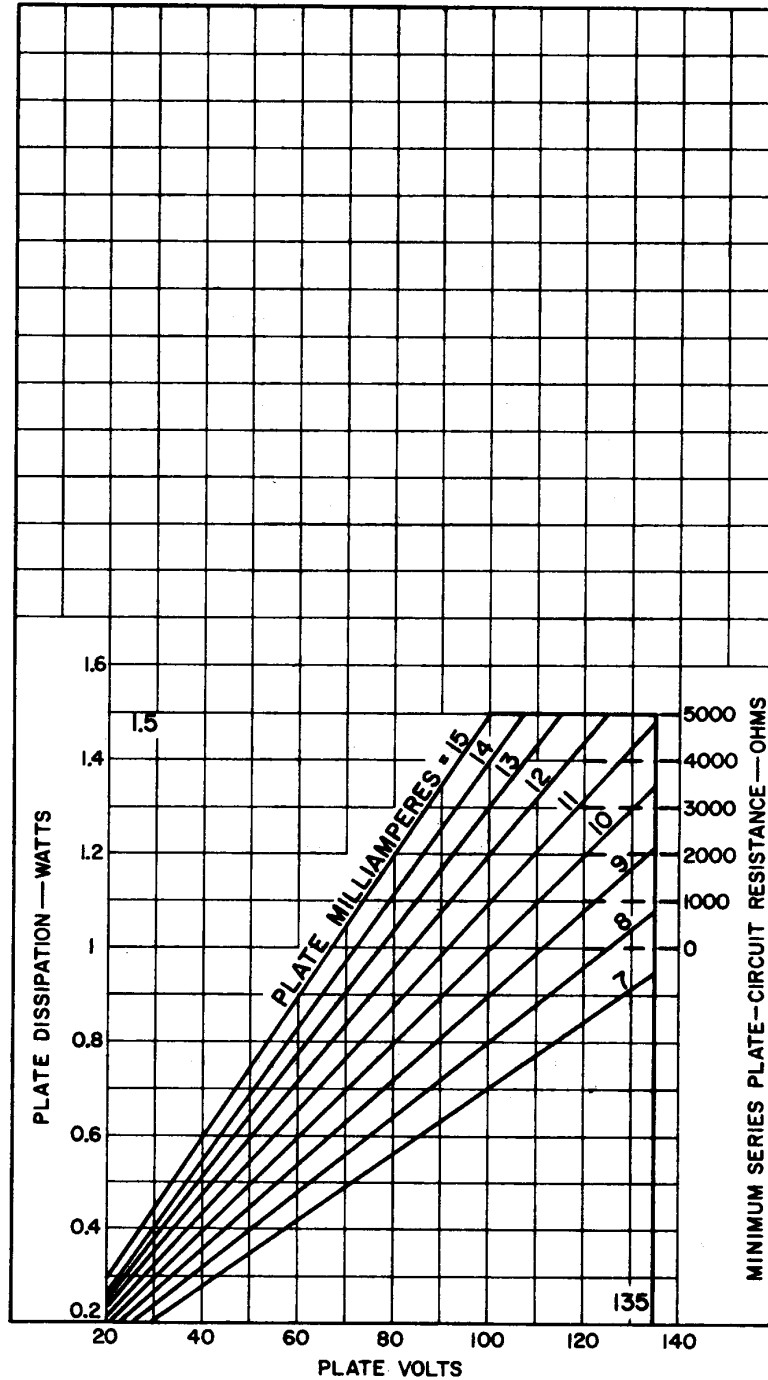


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PLATE-DISSIPATION-RATING CHART



92CM-11681

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AVERAGE PLATE CHARACTERISTICS



92CM-11209

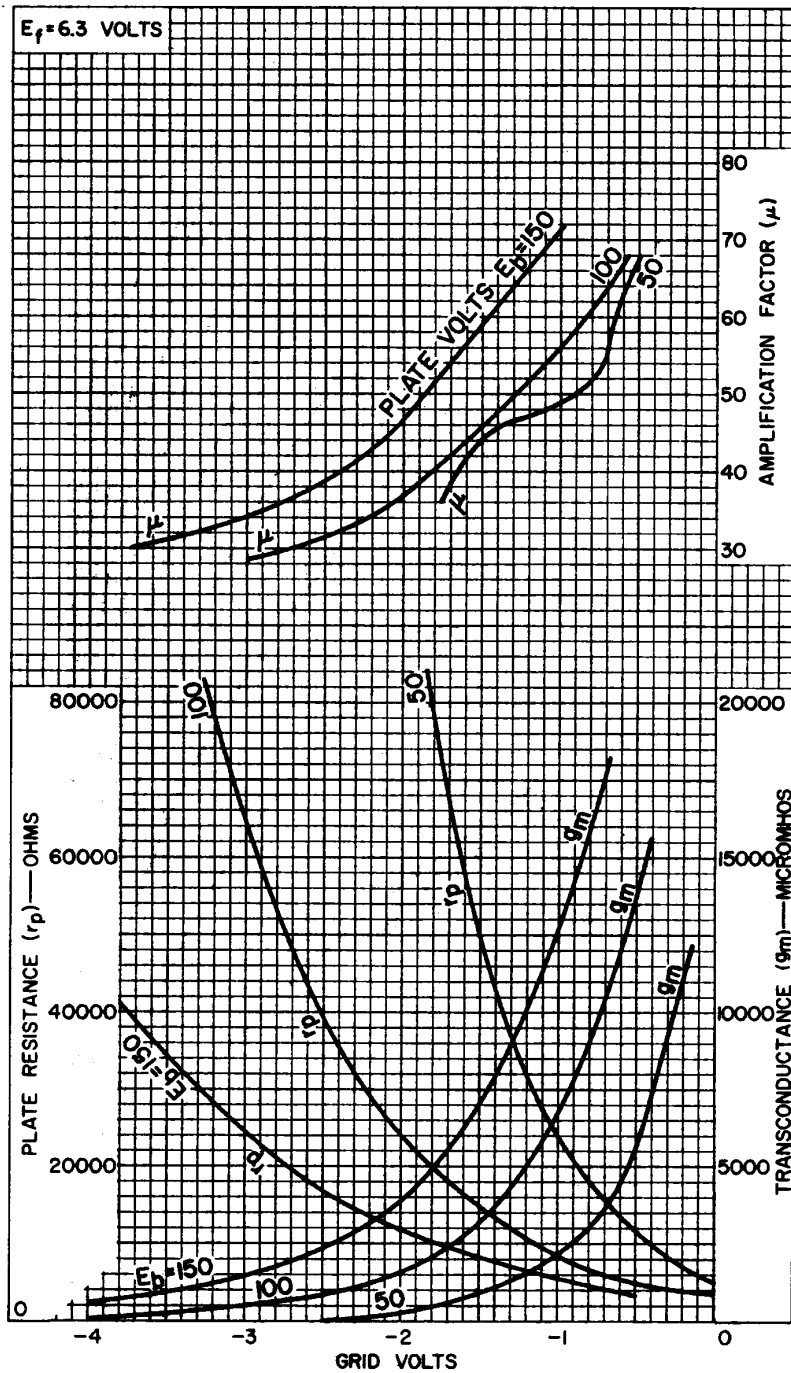


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DATA 3
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AVERAGE CHARACTERISTICS



92CM-11210

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