

High-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

For Sound-IF, Keyed-AGC, Sync-Separator, Sync-Amplifier,
Noise-Suppression Circuits, and Video Amplifier Service

GENERAL DATA

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC)	6.3 ^a	6.3 ± 0.6	volts
Current	0.600 ± 0.040	0.600 ^b	amp
Warm-up time (Average)	11	—	sec

Peak heater-cathode voltage (Each unit):

Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200 ^c max.	volts

Direct Interelectrode Capacitances:^d

Triode Unit:

Grid to plate	2.2	pf
Grid to cathode and heater	3.0	pf
Plate to cathode and heater	2.0	pf

Pentode Unit:

Grid No.1 to plate	0.08 max.	pf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2 and heater	8.0	pf
Pentode plate to pentode cathode & grid No.3 & internal shield, grid No.2 and heater	3.2	pf
Pentode grid No.1 to triode plate	0.012 max.	pf
Pentode plate to triode plate	0.24 max.	pf

Characteristics, Class A₁ Amplifier:

Triode Unit

Plate Voltage	200	volts
Grid-No.1 Voltage	—2	volts
Amplification Factor	70	
Plate Resistance (Approx.)	17500	ohms
Transconductance	4000	μmhos
Plate Current	4	ma



6JV8

Triode Unit

Grid-No.1 Voltage (Approx.)
for plate $\mu a = 20$ -5 volts

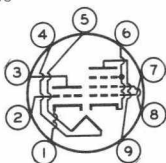
Pentode Unit

Plate Voltage	40	60	125	200	volts
Grid-No.2 Voltage	125	200	125	200	volts
Grid-No.1 Voltage	0	0	-1	-2.9	volts
Plate Resistance (Approx.)	-	-	100000	150000	ohms
Transconductance	-	-	11500	10700	μ mhos
Plate Current	28 ^e	51 ^e	22	22	ma
Grid-No.2 Current	9 ^e	14 ^e	4	4	ma
Grid-No.1 Voltage (Approx.) for plate $\mu a = 20$	-	-	-5.5	-9	volts

Mechanical:

Operating Position. Any
Type of Cathodes. Coated Unipotential
Maximum Overall Length. 2-5/8"
Maximum Seated Length 2-3/8"
Length from Base Seat to Bulb Top (Excluding tip) . 2" $\pm$ 3/32"
Diameter. 0.750" to 0.875"
Dimensional Outline See General Section
Bulb. T6-1/2
Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW. 9DX

Pin 1 -Triode Cathode
Pin 2 -Triode Grid
Pin 3 -Triode Plate
Pin 4 -Heater
Pin 5 -Heater
Pin 6 -Pentode
Cathode,
Grid No.3,
Internal
Shield



Pin 7 -Pentode
Grid No.1
Pin 8 -Pentode
Grid No.2
Pin 9 -Pentode
Plate

AMPLIFIER —Class A₁

Maximum Ratings, Design-Maximum Values:

	Triode Unit	Pentode Unit	
PLATE VOLTAGE	330 max.	330 max.	volts
GRID-NO.2 (SCREEN-GRID) VOLTAGE	-	330 max.	volts
GRID-NO.1 (CONTROL-GRID) VOLTAGE:			
Negative-bias value	50 max.	50 max.	volts
Positive-bias value	0 max.	0 max.	volts
PLATE DISSIPATION	1.1 max.	4 max.	watts
GRID-NO.2 INPUT	-	1.7 max.	watts



Maximum Circuit Values:

Grid-No.1 Circuit Resistance:

For fixed-bias operation. . .	0.5 max.	0.25 max.	megohm
For cathode-bias operation	1 max.	1 max.	megohm

a At heater amperes = 0.600.

b At heater volts = 6.3.

c The dc component must not exceed 100 volts.

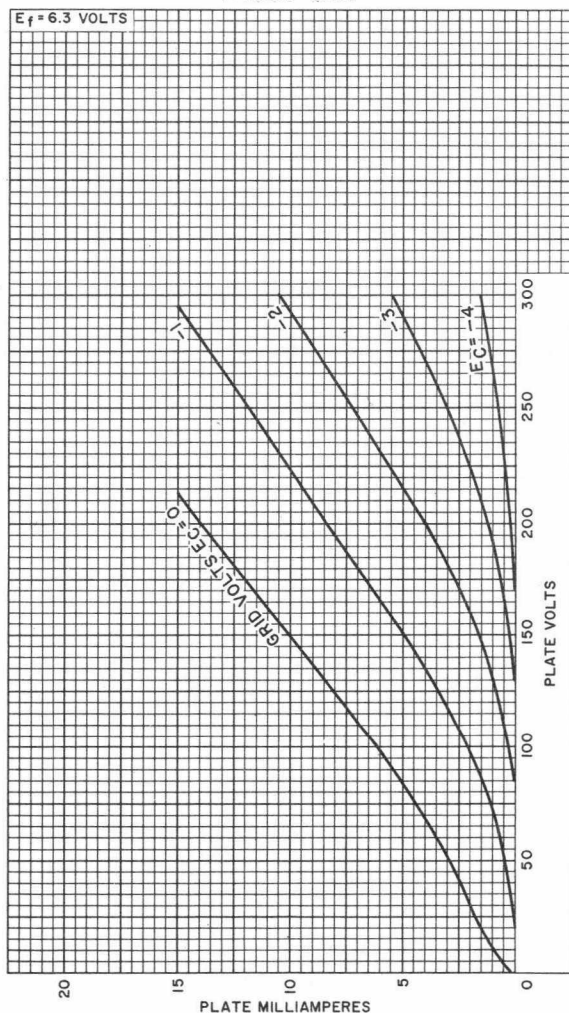
d Without external shield.

e This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.



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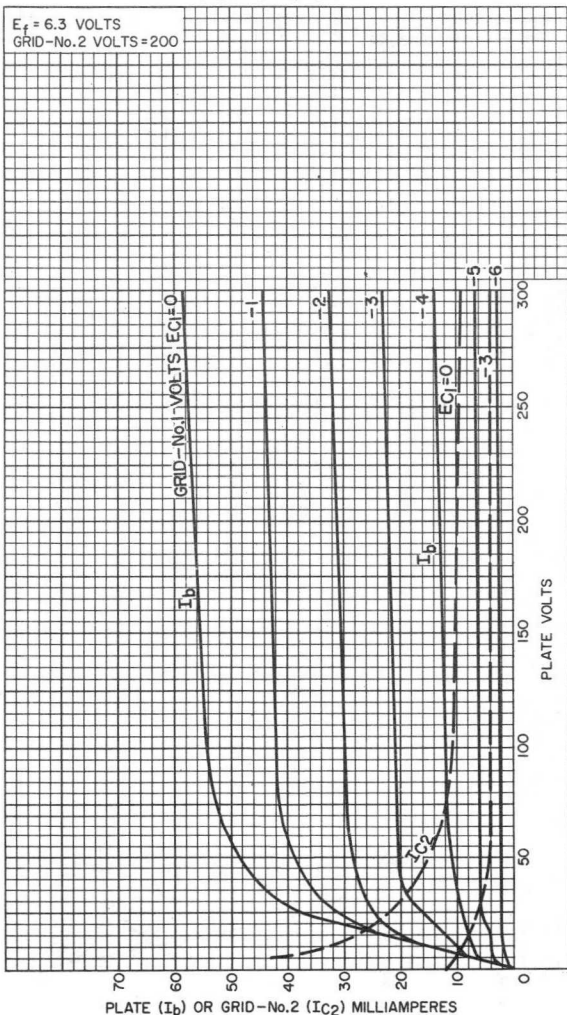
AVERAGE PLATE CHARACTERISTICS Triode Unit



92CM-11960



AVERAGE CHARACTERISTICS Pentode Unit



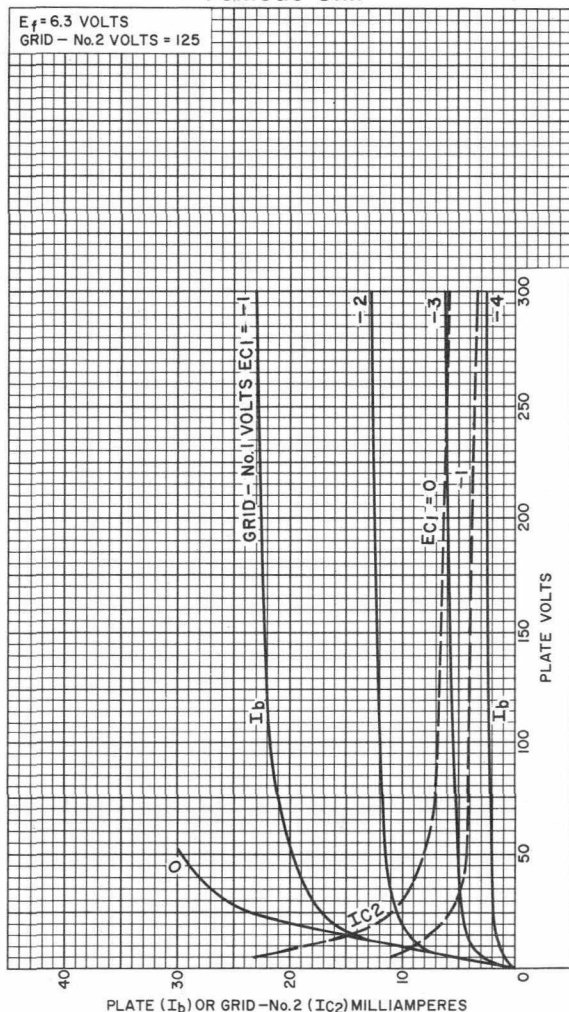
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6JV8

AVERAGE CHARACTERISTICS Pentode Unit

$E_f = 6.3$ VOLTS
GRID - No. 2 VOLTS = 125



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