

Power Pentode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:		
Voltage (AC or DC)	6.3	volts
Current	0.76	amp
Direct Interelectrode Capacitances (Approx.): ^a		
Grid No.1 to plate	0.5	μf
Grid No.1 to cathode & grid No.3, grid No.2, and heater	10.8	μf
Plate to cathode & grid No.3, grid No.2, and heater	6.5	μf
Grid No.1 to heater	0.25	μf

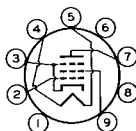
Characteristics, Class A₁ Amplifier:

Plate Voltage	250	volts
Grid-No.2 Voltage	250	volts
Grid-No.1 Voltage	-7.3	volts
Mu-Factor, Grid No.2 to Grid No.1	19.5	
Plate Resistance (Approx.)	40000	ohms
Transconductance	11300	μmhos
Plate Current	48	ma
Grid-No.2 Current	5.5	ma

Mechanical:

Operating Position	Any
Maximum Overall Length	3-1/16"
Maximum Seated Length	2-13/16"
Length, Base Seat to Bulb Top (Excluding tip)	2-7/16" \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	9CV

Pin 1—Internal Con-
nection—
Do Not Use
Pin 2—Grid No.1
Pin 3—Cathode,
Grid No.3



Pin 4—Heater
Pin 5—Heater
Pin 6—Same as Pin 1
Pin 7—Plate
Pin 8—Same as Pin 1
Pin 9—Grid No.2

PUSH-PULL AF POWER AMPLIFIER — Class AB₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	400 max.	volts
GRID-No.2 (SCREEN-GRID) VOLTAGE	300 max.	volts
CATHODE CURRENT	65 max.	ma
PLATE DISSIPATION	12 max.	watts
ZERO-SIGNAL GRID-No.2 INPUT	2 max.	watts



MAX.—SIGNAL GRID—No.2 INPUT.	4 max.	watts
PEAK HEATER—CATHODE VOLTAGE:		
Heater negative with respect to cathode. .	100 max.	volts
Heater positive with respect to cathode. .	100 max.	volts

Typical Operation:*Values are for 2 tubes*

Plate Voltage.	400	volts
Grid—No.2 Voltage.	300	volts
Grid—No.1 Voltage.	-15	volts
Peak AF Grid—No.1 Voltage.	14.8	volts
Zero—Signal Plate Current.	15	ma
Max.—Signal Plate Current.	105	ma
Zero—Signal Grid—No.2 Current.	1.6	ma
Max.—Signal Grid—No.2 Current.	25	ma
Effective Load Resistance		
(Plate to plate)	8000	ohms
Total Harmonic Distortion.	4	%
Max.—Signal Power Output	24	watts

Maximum Circuit Values:

Grid—No.1—Circuit Resistance:		
For fixed—bias operation	0.3 max.	megohm

PUSH-PULL AF POWER AMPLIFIER — Class AB₁*Grid No.2 of each tube connected to tap on plate winding of output transformer***Maximum Ratings, Design—Center Values:**

→ PLATE AND GRID—No.2 (SCREEN—GRID)		
SUPPLY VOLTAGE	375 max.	volts
CATHODE CURRENT.	65 max.	ma
PLATE DISSIPATION.	12 max.	watts
ZERO—SIGNAL GRID—No.2 INPUT.	2 max.	watts
MAX.—SIGNAL GRID—No.2 INPUT.	4 max.	watts
PEAK HEATER—CATHODE VOLTAGE:		
Heater negative with respect to cathode. .	100 max.	volts
Heater positive with respect to cathode. .	100 max.	volts

Typical Operation:*Values are for 2 tubes*

Plate Supply Voltage	375	volts
Grid—No.2 Supply Voltage	300	volts
Cathode Resistor	220	ohms
Peak AF Grid—No.1 Voltage.	17.7	volts
→ Zero—Signal Cathode Current.	70	ma
→ Max.—Signal Cathode Current.	81	ma
Effective Load Resistance		
(Plate to plate)	11000	ohms
Total Harmonic Distortion.	3	%
Max.—Signal Power Output	16.5	watts

→ Indicates a change.



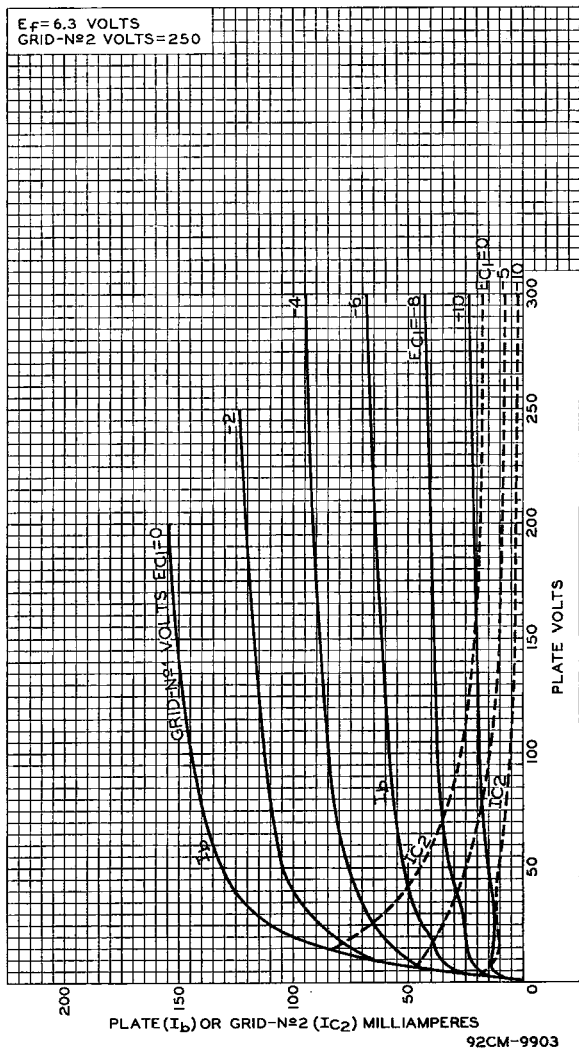
Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

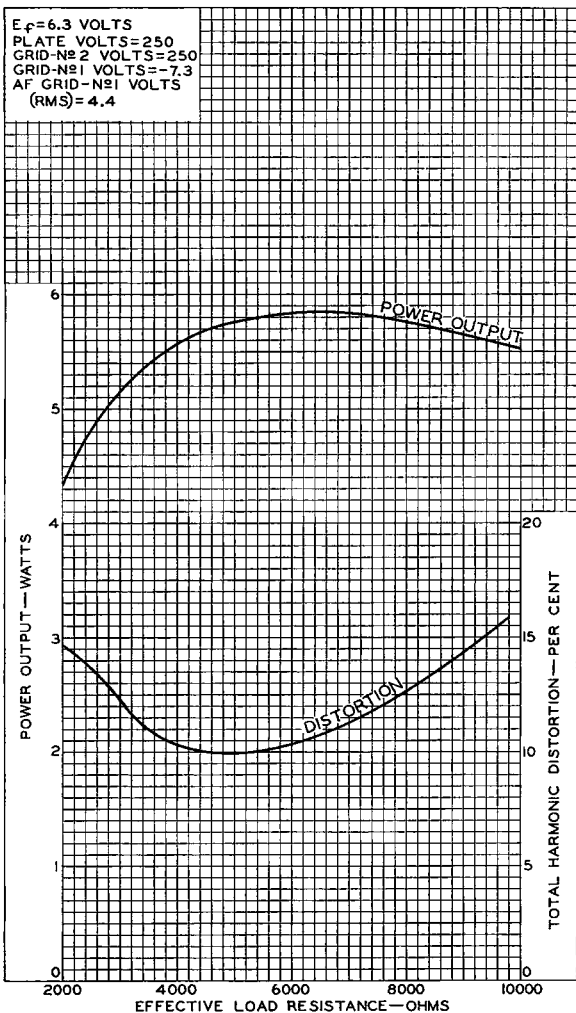
For cathode-bias operation. 1 max. megohm

^a Without external shield.^b Obtained from taps on the primary winding of the output transformer. The taps are located on each side of the center-tap (B+) so as to supply 43 per cent of the plate signal voltage to grid No.2 of each output tube.

AVERAGE CHARACTERISTICS



OPERATION CHARACTERISTICS



92CM-9902

