9C26
POWER TRIODE
FORCED-AIR-COOLED, GROUNDED-GRID TYPE

GENERAL DATA

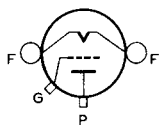
Electrical:

Filament, Multistrand Thoriated Tungsten:		
Excitation. . . . Single-Phase AC or DC		
Voltage	6.0	ac or dc volts
Current	285	amp
Starting Current: The filament current should never exceed 425 amperes, even momentarily.		
Cold Resistance	0.0025	ohms
Amplification Factor. . .	32	
Direct Interelectrode Capacitances (Approx.):		
Grid to Plate	34	μμf
Grid to Filament. . . .	62	μμf
Plate to Filament . . .	1.0	μμf

Mechanical:

Terminal Connections:

F – Filament Posts
G – Grid–Flange Terminal



P – Radiator–Cooled Plate Terminal

Mounting Position.	Vertical, Filament End Up
Maximum Overall Length	17-3/8"
Maximum Diameter	12-3/8"
Radiator	Integral Part of Tube
Mounting	Special
Air Flow:	
Upward through Radiator.	500 min. cfm
The specified air flow at a pressure of 3-3/4 inches of water should be delivered by a blower vertically upward through the radiator before and during the application of any voltages.	
To Filament Seals.	10 cfm
The specified air flow must be directed into the filament header before and during the application of any voltages in order to limit the temperature of the filament and grid seals to the maximum value.	
Output-Air Temperature (from Radiator) . .	70 max. °C
Radiator Temperature (measured in thermometer well). .	180 max. °C
Bulb Temperature	180 max. °C
Seal Temperature (filament, grid, and plate)	165 max. °C

AF POWER AMPLIFIER & MODULATOR—Class B

Maximum CCS• Ratings, *Absolute Values*:

DC PLATE VOLTAGE	11500 max.	volts
MAX.-SIGNAL DC PLATE CURRENT*.	2.5 max.	amp
MAX.-SIGNAL PLATE INPUT*	20 max.	kw
PLATE DISSIPATION*	7.5 max.	kw

•, *: See next page.

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Typical Operation:

Values are for 2 tubes

DC Plate Voltage	8000	volts
DC Grid Voltage	−200	volts
Peak AF Grid-to-Grid Voltage	1030	volts
Zero-Signal DC Plate Current	0.8	amp
Max.-Signal DC Plate Current	4.5	amp
Effective Load Resistance (plate-to-plate)	4000	ohms
Max.-Signal Driving Power (Approx.)	1000	watts
Max.-Signal Power Output (Approx.)	25	kw

RF POWER AMPLIFIER—Class B Telephony

Carrier conditions per tube for use with a max. modulation factor of 1.0

Maximum CCS● Ratings, *Absolute Values*:

DC PLATE VOLTAGE	11500 max.	volts
DC PLATE CURRENT	2 max.	amp
PLATE INPUT	11.5 max.	kw
PLATE DISSIPATION	7.5 max.	kw

Typical Operation in Grounded-Filament Circuit:

DC Plate Voltage	7500	volts
DC Grid Voltage	−175	volts
Peak RF Grid Voltage	275	volts
DC Plate Current	1.5	amp
DC Grid Current (Approx.)**	0.026	amp
Driving Power (Approx.)**○	350	watts
Power Output (Approx.)	4	kw

Typical Operation in Grounded-Grid Circuit:

Same values as for Grounded-Filament Circuit with the following exceptions:

Driving Power (Approx.):		
Carrier	318	watts
Crest○	1600	watts
Power Output (Approx.)	4.3	kw

PLATE-MODULATED RF POWER AMPLIFIER—Class C Telephony

Carrier conditions per tube for use with a max. modulation factor of 1.0

Maximum CCS● Ratings, *Absolute Values*:

DC PLATE VOLTAGE	9000 max.	volts
DC GRID VOLTAGE	−2000 max.	volts
DC PLATE CURRENT	2 max.	amp
DC GRID CURRENT	0.5 max.	amp
PLATE INPUT	13 max.	kw
PLATE DISSIPATION	5 max.	kw

●,*,**,○: See next page.

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Typical Operation in Grounded-Filament Circuit:

DC Plate Voltage	7500	volts
DC Grid Voltage:		
from a fixed supply of	-600	volts
from a grid resistor of	1450	ohms
Peak RF Grid Voltage	960	volts
DC Plate Current	1.7	amp
DC Grid Current (Approx.)**	0.41	amp
Driving Power (Approx.)**	355	watts
Power Output (Approx.)	10.5	kw

Typical Operation in Grounded-Grid Circuit:

Same values as for Grounded-Filament Circuit with the following exceptions:

Driving Power (Approx.)♦	3600	watts
Power Output (Approx.)	12	kw

RF POWER AMPLIFIER & OSCILLATOR—Class C Telegraphy

Key-down conditions per tube without amplitude modulation□

Maximum CCS● Ratings, *Absolute Values:*

DC PLATE VOLTAGE	11500 max.	volts
DC GRID VOLTAGE	-2000 max.	volts
DC PLATE CURRENT	2.5 max.	amp
DC GRID CURRENT	0.5 max.	amp
PLATE INPUT	20 max.	kw
PLATE DISSIPATION	7.5 max.	kw

Typical Operation in Grounded-Filament Circuit:

DC Plate Voltage	7500	volts
DC Grid Voltage:		
from a fixed supply of	-400	volts
from a grid resistor of	1450	ohms
from a cathode resistor of	210	ohms
Peak RF Grid Voltage	675	volts
DC Plate Current	1.6	amp
DC Grid Current (Approx.)**	0.28	amp
Driving Power (Approx.)**	170	watts
Power Output (Approx.)	9	kw

Typical Operation in Grounded-Grid Circuit:

Same values as for Grounded-Filament Circuit with the following exceptions:

Driving Power (Approx.)	3100	watts
Power Output (Approx.)	11	kw

●, *, **, ○, ♦, □: See next page.

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RF POWER AMPLIFIER—Class C FM Telephony

Maximum CCS● Ratings, *Absolute Values*:		
DC PLATE VOLTAGE	11500 max.	volts
DC GRID VOLTAGE	−2000 max.	volts
DC PLATE CURRENT	2.5 max.	amp
DC GRID CURRENT	0.5 max.	amp
PLATE INPUT	20 max.	kw
PLATE DISSIPATION	7.5 max.	kw

Typical Operation in Grounded-Grid Circuit:		
DC Plate Voltage	7500	volts
DC Grid Voltage:		
from a fixed supply of	−400	volts
from a grid resistor of	1450	ohms
from a cathode resistor of	210	ohms
Peak RF Grid Voltage	675	volts
DC Plate Current	1.6	amp
DC Grid Current (Approx.)**	0.28	amp
Driving Power (Approx.)**	3100	watts
Power Output (Approx.)	11	kw

● CCS = Continuous Commercial Service.

* Averaged over any audio-frequency cycle of sine-wave form.

** Subject to wide variations depending on the impedance of the plate circuit. High-impedance plate circuits require more grid current and driving power to obtain the desired output. Low-impedance plate circuits need less grid current and driving power, but plate-circuit efficiency is sacrificed. The driving stage should have a tank circuit of good regulation and should be capable of supplying considerably more than the required driving power.

○ At crest of audio-frequency cycle with modulation factor of 1.0.

◆ Carrier power of driver modulated 100%.

□ Modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

Data on operating frequencies for the 9C26 are given on the sheet TRANS. TUBE RATINGS vs. FREQUENCY.

CURVES

AVERAGE FILAMENT CHARACTERISTIC,
AVERAGE PLATE CHARACTERISTIC,
AND
TYPICAL GRID CHARACTERISTIC
are the same as those for Type 9C27

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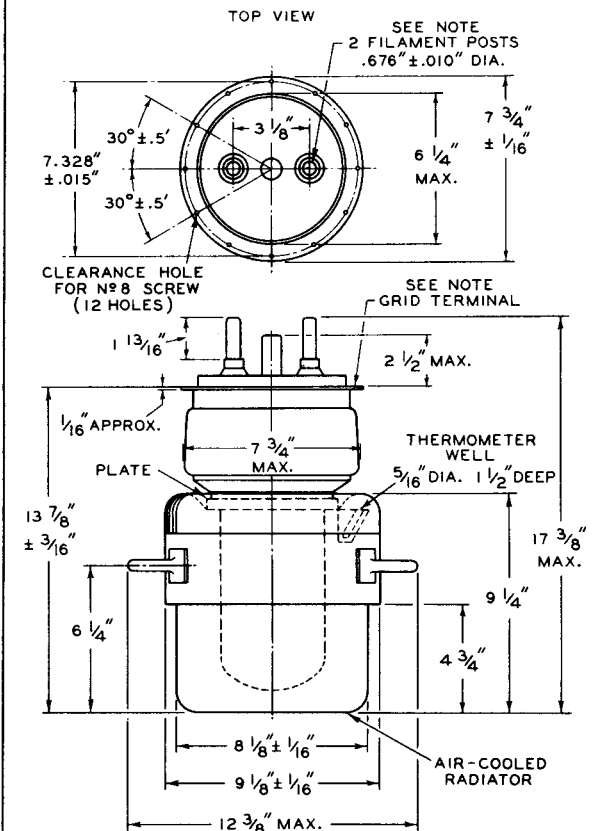

NOTE: FLEXIBLE CONNECTIONS ARE REQUIRED.

92CM-6751