



9C26

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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.

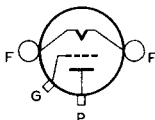
Cold Resistance 0.0025 ohms

Amplification Factor. . . 32

Direct Interelectrode Capacitances (Approx.):

Grid to Plate 34 μmf Grid to Filament. . . . 62 μmf Plate to Filament . . . 1.0 μmf **Mechanical:**

Terminal Connections:

F—Filament Posts
G—Grid-Flange
TerminalP—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

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APRIL 15, 1947

TUBE DEPARTMENT

TENTATIVE DATA 1

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



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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.)**0	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 ⁰	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

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Typical Operation in Grounded-Filament Circuit:

DC Plate Voltage.	7500	..	volts
DC Grid Voltage:			
<i>from a fixed supply of.</i>	-600	..	volts
<i>from a grid resistor of</i>	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:			
<i>from a fixed supply of.</i>	-400	..	volts
<i>from a grid resistor of</i>	1450	..	ohms
<i>from a cathode resistor of.</i>	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

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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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