



TWIN TRIODE POWER AMPLIFIER OSCILLATOR

The RK-34 is a heater type twin triode power amplifier tube having an isolantite base. It is designed for use as a power amplifier, oscillator or frequency multiplier.



HEATER RATING

Heater Voltage	6.3	volts
Heater Current	0.8	amp

DIRECT INTERELECTRODE CAPACITANCES—EACH TRIODE*

Grid to Plate	2.4	μmf
Input	3.4	μmf
Output	0.5	μmf

R-F POWER AMPLIFIER OR OSCILLATOR—PUSH-PULL—CLASS C

MAXIMUM RATINGS

D-C Plate Voltage	300	volts
D-C Plate Current (both triodes)	80	ma
Plate Dissipation (both triodes) (Averaged over 1 cycle)	10	watts

TYPICAL OPERATION

D-C Plate Voltage	300	volts
D-C Grid Voltage	-36	volts
D-C Plate Current	80	ma
D-C Grid Current	20	ma
Peak R-F Input Voltage (grid to grid)	196	volts
R-F Driving Power	1.8	watts
Power Output	16	watts

A-F POWER AMPLIFIER—CLASS B

MAXIMUM RATINGS

D-C Plate Voltage	300	volts
Peak Plate Current (both triodes)	125	ma
Plate Dissipation (both triodes) (Averaged over 1 cycle)	10	watts

TYPICAL OPERATION

D-C Plate Voltage	180	300	volts
D-C Grid Voltage	-6	-15	volts
D-C Plate Current (no signal)	30	30	ma
D-C Plate Current (max. signal)	70	70	ma
D-C Grid Current (max. signal)	16	12	ma
Peak A-F Input Voltage (grid to grid)	100	100	volts
A-F Driving Power	0.7	0.5	watts
Load Resistance (plate to plate)	6000	10000	ohms
Power Output	7.8	13	watts

A-F POWER AMPLIFIER—CLASS A

(Two Triodes Connected in Parallel)

MAXIMUM RATINGS

D-C Plate Voltage	300	volts
Plate Dissipation	10	watts

TYPICAL OPERATION

D-C Plate Voltage	300	volts
D-C Grid Voltage	-16	volts
D-C Plate Current	25	ma
Amplification Factor	13	
Plate Resistance	3100	ohms
Transconductance	4200	μmhos
Load Resistance	5000	ohms
Power Output	0.8	watts

OPERATING NOTES

FREQUENCY RANGE

The RK-34 may be operated at maximum ratings up to 80 megacycles. 75% of rated input may be used at 120 megacycles and 50% of rated input at 160 megacycles.

BIAS

At least 15 volts of fixed bias should be used with 300 volts on the plate to protect the tube in case of failure of the bias or excitation.

PLATE TEMPERATURE

The plates of the RK-34 will not show color when operated at the maximum rated plate dissipation. Dissipations above the rated value should be avoided.

*Triode not under test connected to ground.

