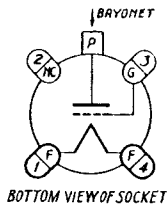


TRIODE POWER AMPLIFIER OSCILLATOR

The RK-11 is a triode type power amplifier tube having a thoriated tungsten filament, and an isolantite base. It is designed for use as a power amplifier, oscillator or frequency multiplier.



AMPLIFICATION FACTOR 20 FILAMENT RATING

Filament Voltage 6.3 volts
Filament Current 3.0 amp

DIRECT INTERELECTRODE CAPACITANCES

Grid to Plate	7	μμf
Input	7	μμf
Output	0.9	μμf

R-F POWER AMPLIFIER OR OSCILLATOR— CLASS C—TELEGRAPHY

MAXIMUM RATINGS	
D-C Plate Voltage	750 volts
D-C Plate Current	105 ma
D-C Grid Current	35 ma
Plate Dissipation	25 watts

TYPICAL OPERATION

D-C Plate Voltage	500	750	volts
D-C Grid Voltage	-100	-120	volts
D-C Plate Current	100	105	ma
D-C Grid Current	21	21	ma
Peak R-F Input Voltage	165	170	volts
R-F Driving Power	3.1	3.2	watts
Power Output	35	55	watts

R-F POWER AMPLIFIER—CLASS B—TELEPHONY

MAXIMUM RATINGS

D-C Plate Voltage	750	volts
D-C Plate Current (Carrier)	50	ma
Plate Dissipation (Carrier)	25	watts

TYPICAL OPERATION

D-C Plate Voltage	750	volts
D-C Grid Voltage	-40	volts
D-C Plate Current	44	ma
D-C Grid Current	1	ma
Peak R-F Input Voltage	110*	volts
R-F Driving Power	2 *	watts
Carrier Power Output	12	watts
Peak Power Output	48 *	watts

*At the peak of the a-f cycle with 100% modulation.

R-F POWER AMPLIFIER—CLASS C—TELEPHONY

MAXIMUM RATINGS

	Plate Modulation	Grid Modulation	
D-C Plate Voltage	600	750	volts
D-C Plate Current (Carrier)	83	50	ma
D-C Grid Current (Carrier)	35	5	ma
Plate Dissipation (Carrier)	17	25	watts

TYPICAL OPERATION

	Plate Modulation	Grid Modulation	
D-C Plate Voltage	500	600	750
D-C Grid Voltage	-100	-120	-130
D-C Plate Current	83	85	38
D-C Grid Current	26	24	1.2
Peak R-F Input Voltage	160	170	150
R-F Driving Power	3.7	3.7	2.7*
Carrier Power Output	28	38	12
Peak A-F Modulating Voltage	500*	600*	30 *
A-F Modulating Power	21	26	0.5*
Peak Power Output	112*	152*	48 *

*At the peak of the a-f cycle with 100% modulation.

OPERATING NOTES

FREQUENCY RANGE

The construction of the RK-11 allows operation at the maximum ratings at frequencies up to 60 megacycles. Above 60 megacycles the reduced efficiency realized requires that the plate voltage be lowered to prevent the plate dissipation from exceeding the maximum rated value.

BIAS

A fixed bias voltage of at least 30 volts should be used with a plate voltage of 750 volts in order to protect the tube in case of failure of bias or excitation. The fixed bias may be reduced with lower plate voltage.

PLATE TEMPERATURE

The plate of the RK-11 will not show color when operated at the maximum rated plate dissipation. Dissipations above the rated value should be avoided.

