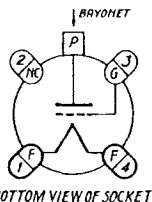


### TRIODE POWER AMPLIFIER OSCILLATOR

The RK-12 is a high- $\mu$  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.



BOTTOM VIEW OF SOCKET

#### FILAMENT RATING

|                  |     |       |
|------------------|-----|-------|
| Filament Voltage | 6.3 | volts |
| Filament Current | 3.0 | amp   |

#### DIRECT INTERELECTRODE CAPACITANCES

|               |     |         |
|---------------|-----|---------|
| Grid to Plate | 7   | $\mu$ f |
| Input         | 7   | $\mu$ f |
| Output        | 0.9 | $\mu$ f |

### A-F POWER AMPLIFIER—CLASS B—TWO TUBES

#### MAXIMUM RATINGS

|                              |     |       |
|------------------------------|-----|-------|
| D-C Plate Voltage            | 750 | volts |
| D-C Plate Current (per tube) | 105 | ma    |
| Plate Dissipation (per tube) | 25  | watts |

(Averaged over 1 cycle)

#### TYPICAL OPERATION

|                                      |      |       |
|--------------------------------------|------|-------|
| D-C Plate Voltage                    | 750  | volts |
| D-C Grid Voltage                     | 0    | volts |
| D-C Plate Current (no signal)        | 50   | ma    |
| D-C Plate Current (max. signal)      | 200  | ma    |
| D-C Grid Current (max. signal)       | 65   | ma    |
| Peak A-F Grid Voltage (grid to grid) | 129  | volts |
| A-F Driving Power                    | 3.4  | watts |
| Load Resistance (plate to plate)     | 9600 | ohms  |
| Power Output                         | 100  | watts |

### R-F POWER AMPLIFIER—CLASS C—TELEGRAPHY

#### MAXIMUM RATINGS

|                   |     |       |
|-------------------|-----|-------|
| D-C Plate Voltage | 750 | volts |
| D-C Plate Current | 105 | ma    |
| D-C Grid Current  | 40  | ma    |
| Plate Dissipation | 25  | watts |

#### TYPICAL OPERATION

|                        |      |      |       |
|------------------------|------|------|-------|
| D-C Plate Voltage      | 500  | 750  | volts |
| D-C Grid Voltage       | -100 | -100 | volts |
| D-C Plate Current      | 100  | 105  | ma    |
| D-C Grid Current       | 32   | 35   | ma    |
| Peak R-F Input Voltage | 160  | 165  | volts |
| R-F Driving Power      | 4.6  | 5.2  | watts |
| Power Output           | 35   | 55   | watts |

### R-F POWER AMPLIFIER—CLASS C—TELEPHONY

#### PLATE MODULATION

##### MAXIMUM RATINGS

|                   |     |       |
|-------------------|-----|-------|
| D-C Plate Voltage | 600 | volts |
| D-C Plate Current | 85  | ma    |
| D-C Grid Current  | 40  | ma    |
| Plate Dissipation | 17  | watts |

##### TYPICAL OPERATION

|                        |      |      |       |
|------------------------|------|------|-------|
| D-C Plate Voltage      | 500  | 600  | volts |
| D-C Grid Voltage       | -100 | -100 | volts |
| D-C Plate Current      | 85   | 85   | ma    |
| D-C Grid Current       | 27   | 27   | ma    |
| Peak R-F Input Voltage | 148  | 155  | volts |
| R-F Driving Power      | 3.6  | 3.8  | watts |
| Carrier Power Output   | 30   | 38   | watts |
| A-F Modulating Power   | 21   | 26   | watts |
| Peak Power Output      | 120  | 152  | watts |

#### OPERATING NOTES

##### FREQUENCY RANGE

The construction of the RK-12 allows operation at the maximum ratings at frequencies up to 60 megacycles. Above 60 megacycles reduced efficiency requires that the plate voltage be lowered to prevent the plate dissipation from exceeding the maximum rated value.

##### PLATE TEMPERATURE

The plate of the RK-12 will not show color when operated at the rated plate dissipation. Dissipations above the rated value should be avoided.

