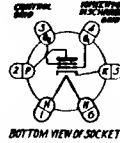


GASEOUS DISCHARGE TRIODE POWER AMPLIFIER OSCILLATOR

The RK-100 is a heater type gaseous discharge tube designed for use as a power amplifier or oscillator. The RK-100 differs from conventional tubes in that it contains mercury vapor and an auxiliary grid, number one grid, which acts as an anode for the ionizing discharge and as a virtual cathode for the amplifier section of the tube. In practice the actual cathode is used as the zero potential point for the circuit returns.



HEATER RATING

Heater Voltage	6.3	volts
Heater Current	0.9	amp

DIRECT INTERELECTRODE CAPACITANCES

Grid to Plate	19	μf
Input	23	μf
Output	3	μf

A-F POWER AMPLIFIER—CLASS A

MAXIMUM RATINGS

D-C Plate Voltage	150	volts
D-C Plate Current	250	ma
D-C Control Grid Current	100	ma
D-C Ionizing Current	250	ma
Plate Dissipation	15	watts

TYPICAL OPERATION—SINGLE TUBE

D-C Plate Voltage	110	volts
D-C Control Grid Voltage	-1.6	volts
D-C Ionizing Current	150	ma
D-C Plate Current (no signal)	50	ma
D-C Control Grid Current (max. signal)	7	ma
A-F Grid Voltage (RMS)	6	volts
Amplification Factor	40	
Plate Resistance	3600	ohms
Transconductance	12000	μmhos
Load Resistance	1600	ohms
Power Output (10% Total Distortion)	3.2	watts

TYPICAL OPERATION—PUSH-PULL—TWO TUBES

D-C Plate Voltage	110	volts
D-C Control Grid Voltage	-1.6	volts
D-C Ionizing Current (per tube)	150	ma
D-C Plate Current (no signal)	100	ma
D-C Control Grid Current (max. signal)	14	ma
A-F Grid Voltage (grid to grid) (RMS)	13	volts
Load Resistance (plate to plate)	2000	ohms
Power Output (10% Total Distortion)	7	watts

