

# Sylvania

## TYPE 20

### POWER AMPLIFIER



### CHARACTERISTICS

Filament Voltage DC . . . . .	3.0	3.3 Volts
Filament Current . . . . .	0.125	0.132 Ampere

### Direct Interelectrode Capacitances:

Grid to Plate . . . . .	3.7 $\mu\text{f}$
Input . . . . .	2.4 $\mu\text{f}$
Output . . . . .	2.3 $\mu\text{f}$
Maximum Over-all Length. . . . .	4 $\frac{1}{8}$ "
Maximum Diameter . . . . .	1 $\frac{1}{16}$ "
Bulb . . . . .	T-8
Base—Small 4-Pin . . . . .	4-D

### Operating Conditions and Characteristics:

Filament Voltage DC . . . . .	3.3	3.3 Volts
Plate Voltage . . . . .	90	135 Volts Max.
Grid Voltage . . . . .	-16.5	-22.5 Volts
Plate Current . . . . .	2.8	6.0 Ma.
Plate Resistance . . . . .	7800	5850 Ohms
Mutual Conductance . . . . .	450	600 $\mu\text{mhos}$
Amplification Factor . . . . .	3.5	3.5
Load Resistance . . . . .	9600	6500 Ohms
Power Output . . . . .	50	130 Mw.

### CIRCUIT APPLICATION

Sylvania 20 is a filament type power amplifier which was designed especially for service in the output stage of dry cell operated receivers. Used in conjunction with Type 99 it bears the same relation to that tube as the 12A bears to the 01A.

The filament may be operated from three No. 6 dry cells connected in series. A rheostat should be provided to maintain the filament voltage within the published limits. The tube should be operated in a vertical position. Type 20 is used primarily as a replacement tube in receivers designed for its Characteristics.