



Sylvania  
**TYPE 12A7**  
**RECTIFIER AND**  
**PENTODE**

### CHARACTERISTICS

Heater Voltage AC or DC . . . . .	12.6 Volts
Heater Current . . . . .	0.3 Ampere
Maximum Over-all Length . . . . .	4 1/2"
Maximum Diameter . . . . .	1 1/8"
Bulb . . . . .	ST-12
Cap . . . . .	Small Metal
Base—Small 7-Pin . . . . .	7-K

### Operating Conditions and Characteristics:

#### RECTIFIER SECTION

Heater Voltage . . . . .	12.6 Volts
A-C Voltage per Plate (RMS) . . . . .	125 Volts Max.
D-C Output Current . . . . .	30 Ma. Max.

NOTE: For rectifier curve data see Page 153.

#### PENTODE SECTION

Heater Voltage . . . . .	12.6 Volts
Plate Voltage . . . . .	135 Volts
Grid Voltage . . . . .	-13.5 Volts
Screen Voltage . . . . .	135 Volts
Plate Current . . . . .	9.0 Ma.
Plate Resistance . . . . .	102,000 Ohms
Mutual Conductance . . . . .	975 $\mu$ mhos
Amplification Factor . . . . .	100
Load Resistance . . . . .	13500 Ohms
Power Output . . . . .	0.55 Watt

### CIRCUIT APPLICATION

Sylvania 12A7 is a combination power pentode and rectifier tube, the two sections being mounted within the same bulb. There is a 6.3 volt heater for each unit, the heaters being connected in series internally. The rated heater voltage of the tube is therefore 12.6 volts. The base diagram shows that separate connections are brought out for the pentode cathode, screen grid and plate. The suppressor grid of the pentode section is connected internally to the pentode cathode.

The principal use for this tube is in small AC-DC receivers where space is at a premium. Since the maximum plate voltages are relatively low, the power output from the pentode is not high; also it should be noted that the d-c load current of the rectifier section is limited to 30 milliamperes.

# TYPE 12A7

$E_F = 12.6$  VOLTS  
4 MFD. CONDENSER INPUT TO FILTER

