Sylvania

TYPE 6B8

DUODIODE
HIGH GAIN PENTODE

CHARACTERISTICS

Heater Voltage AC or DC	6.3 Volts
Heater Current	0.3 Ampere

Direct Interelectrode Capacitances—Pentode Section:

Grid to Plate (with shell connected to cathode)	0.005 μμf
Input	6.0 μμf
Output	9.0 μμf
Maximum Over-all Length	3⅛"
Maximum Diameter	1 $\frac{5}{16}$"
Cap	Miniature
Base—Small Octal 8-Pin	8-E

Operating Conditions and Characteristics:

DIODE UNITS

With an applied d-c plate voltage of 10 volts the space current per plate (no external load) should exceed 0.5 milliampere.

PENTODE UNIT

CLASS A AMPLIFIER

Heater Voltage	6.3 Volts
Plate Voltage	250 Volts Max.
Screen Voltage	125 Volts Max.
Grid Voltage	−3 Volts
Plate Current	10 Ma.
Screen Current	2.3 Ma.
Grid Bias Voltage*	−21 Volts Approx.
Plate Resistance	0.6 Megohm Max.
Mutual Conductance	1325 Micromhos
Amplification Factor	800 Approx.

*For cathode current cut-off.

CIRCUIT APPLICATION

Sylvania 6B8 is a metal type duodiode pentode with characteristics similar to those of Type 6B7. This tube may be utilized as an amplifier, detector and a-v-c tube. The pentode section may be used in conventional circuits as an r-f or i-f amplifier. As an a-f amplifier the pentode unit may be used in a resistance coupled circuit to provide high gain.

Two diode plates are placed around a cathode, the sleeve of which is common to the pentode unit. Each diode plate has its own base pin.

The special application of reflex operation is similar to that applying to Type 6B7. For more detailed circuit information refer to Type 6B7, Pages 40 and 41.