6G8G
DUO-DIODE SUPER-CONTROL PENTODE

Heater Coated Uni-potential Cathode
Voltage 6.3 a-c or d-c volts
Current 0.3 amp.

Direct Interelectrode Capacitances - Pentode Unit:
Grid to Plate (with shielded cathode) 0.007 max. µuf
Input 5.5 µuf
Output 6.5 µuf

Overall Length 4-7/32" to 4-15/32"
Maximum Diameter 1-9/16"
Bulb ST-12
Cap Skirted Miniature

Base 4-5 Small Shell Octal 8-Pin
Pin 1-No Connection 6 Pin 6-Screen
Pin 2-Heater 7 Pin 7-Heater
Pin 3-Plate 8 Pin 8-Cathode
Pin 4-Diode Plate #2 Cap - Grid
Pin 5-Diode Plate #1 BOTTOM VIEW

PENTODE UNIT : R-F or I-F Amplifier

Operating Conditions and Characteristics:
Heater* 6.3 6.3 volts
Plate 250 250 volts
Screen 175 175 volts
Grid 3 3 volts
Amp. Freq. 900 600 megohm
Plate Res. 0.085 0.51 µhm
Mut. Cond. 4100 4100 µhm
Plate Cur. 6.5 9.5 ma.
Grid Bias** -35 -43 approx. volts
Screen Cur. 1.5 2.2 ma.
**For Mut. Cond.
10 µhm

PENTODE UNIT : A-F Amplifier

Operating Conditions:
Heater* 6.3 volts
Plate Supply 250 volts
Screen Supply 250 volts
Load Resistance 0.25 megohm
Cathode Bias Resistor 2000 ohms
Screen voltage may be obtained from voltage divider
(1 megohm and 0.25 megohm)

DIODE UNITS - Two

These units are independent of each other and from
the pentode unit except for the common cathode sleeve.
Their rectifying or detecting action may be used in half-
or full-wave arrangement to supply signal voltage to the
pentode unit and/or voltage to regulate the gain of the
r-f or i-f amplifier stages so as to maintain essentially
constant-carrier input to the audio detector. The half-
wave circuit will provide approximately twice the recti-
ﬁed voltage obtainable from the full-wave circuit.

Regulation of amplifier gain by means of a rectified
voltage may be accomplished by a number of methods. The
regulating voltage may be applied to the control grids of
the amplifier valves, or it may be applied in the case of
r-f pentodes to their suppressors, plates and/or screens.

- The cathode should preferably be connected directly to the mid-tap
of the heater winding. If this practice is not followed, the poten-
tial difference between heater and cathode should be kept as low as
possible.

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DUO-DIODE PENTODE
AVERAGE CHARACTERISTICS
PENTODE UNIT

$E_f = 6.3$ VOLTS
SCREEN VOLTS = 100
PLATE VOLTS = 250