

DUO-DIODE POWER AMPLIFIER PENTODE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage	6.3	a.c. or d.c.volts
Current	0.8	amps.

Direct Interelectrode Capacitances:<sup>o</sup>

Pentode Unit:			
Grid to Plate	0.5	max.	$\mu\text{mF}$
Input	11.5		$\mu\text{mF}$
Output	9.5		$\mu\text{mF}$
Diode Units:			
Diode (pin 1) to Diode (pin 6)	0.01	max.	$\mu\text{mF}$
Diode (pin 1) to Pentode Plate	0.7	max.	$\mu\text{mF}$
Diode (pin 6) to Pentode Plate	0.8	max.	$\mu\text{mF}$
Diode (pin 1) to Pentode Grid	0.1	max.	$\mu\text{mF}$
Diode (pin 6) to Pentode Grid	0.1	max.	$\mu\text{mF}$

<sup>o</sup>With no external shield

Mechanical:

Mounting Position	Any
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-5/8"
Length, Base Seat to Bulb Top (excluding tip)	2"±3/32"
Maximum Diameter	7/8"
Bulb	T-8-2
Base	Small-Button Noval 9-Pin

Base Connections for BOTTOM VIEW

Pin 1 - Diode Plate	Pin 7 - Cathode and Pentode Grid No. 3.
Pin 2 - Pentode Plate	Pin 8 - Pentode Grid No. 1.
Pin 3 - Pentode Grid No. 2	Pin 9 - Cathode and Pentode Grid No. 3
Pin 4 - Heater	
Pin 5 - Heater	
Pin 6 - Diode Plate	



## DUO-DIODE POWER AMPLIFIER PENTODE

PENTODE UNITA-F POWER AMPLIFIER - Class A<sub>1</sub>

Maximum Ratings; Design-Centre Values:

PLATE VOLTAGE	250	max. volts.
GRID NO. 2 VOLTAGE	250	max. volts.
PLATE DISSIPATION	10	max. watts.
GRID NO. 2 DISSIPATION	2	max. watts.
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	90	max. volts.
Heater positive with respect to cathode	90	max. volts.

Typical Operation and Characteristics:

Plate Voltage	180	250 volts.
Grid No. 2 (Screen) Voltage	180	250 volts.
Grid No. 1 (Control-Grid) Voltage	-4	-5 volts.
Peak A-F Grid No. 1 Volt ge	4	5 volts.
Zero-Sig. Plate Current	20	38 mA.
Zero-Sig. Grid No. 2 Current	3.5	6.0 mA.
Plate Resistance (Approx.)	150000	100000 ohms.
Transconductance	8000	10000 $\mu$ hos.
Load Resistance	7000	7000 ohms.
Max. Sig. Total Harmonic Distortion	10	10 %
Max. Sig. Power Output	2	4 watts.

Maximum Circuit Values (for maximum rated conditions):

Grid No. 1 -- Circuit Resistance:

For fixed bias	0.1 megohm
For cathode bias	0.5 megohm

DIODE UNITS

Maximum Ratings, Design-Centre Values:

PLATE CURRENT (For each diode) 1.0 max. mA

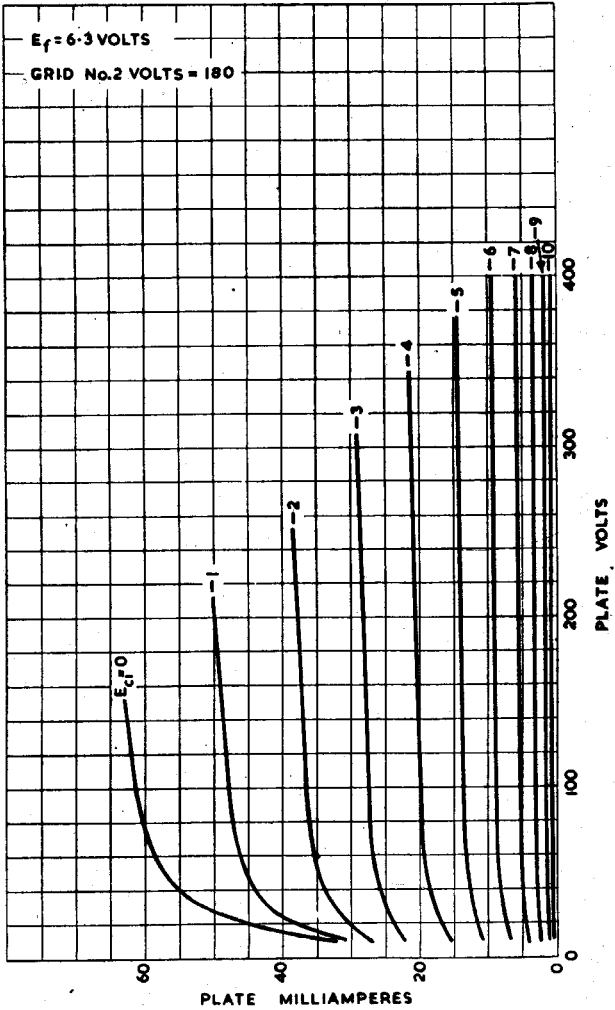
Diode considerations:

The two diode units are placed on opposite sides of, and parallel to the cathode, the sleeve of which is common also to the pentode unit.

The minimum diode current per plate with an applied d.c. voltage of 10 volts is 0.8 mA.

# 6BV7

## AVERAGE PLATE CHARACTERISTICS



6BV7

# AVERAGE PLATE CHARACTERISTICS

