

# 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 shield-can) 0.007 max.  $\mu\text{f}$   
 Input 3.5  $\mu\text{f}$   
 Output 9.5  $\mu\text{f}$

Overall Length 4-7/32" to 4-15/32"

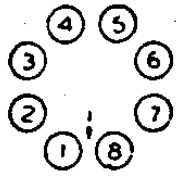
Maximum Diameter 1-9/16"

Bulb ST-12

Cap Skirted Miniature

Base Small Shell Octal 8-Pin

Pin 1-No Connection (3) (4) (5) (6)  
 Pin 2-Heater (2) (7)  
 Pin 3-Plate (1) (8)  
 Pin 4-Diode Plate #2  
 Pin 5-Diode Plate #1  
 Pin 6-Screen  
 Pin 7-Heater  
 Pin 8-Cathode  
 Cap -Grid



### PENTODE UNIT : R-F or I-F Amplifier

#### Operating Conditions and Characteristics:

Heater*	6.3	6.3	volts
Plate	250	250	volts
Screen	100	125	volts
Grid	-3	-3	volts
Amp. Fact.	900	600	
Plate Res.	0.85	0.51	megohm
Mut. Cond.	1100	1210	$\mu\text{mhos}$
Plate Cur.	6.5	9.5	ma.
Grid Bias**	-35	-43	approx. volts
Screen Cur.	1.5	2.2	ma.
**For Mut. Cond.	10	$\mu\text{mhos}$	

### 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

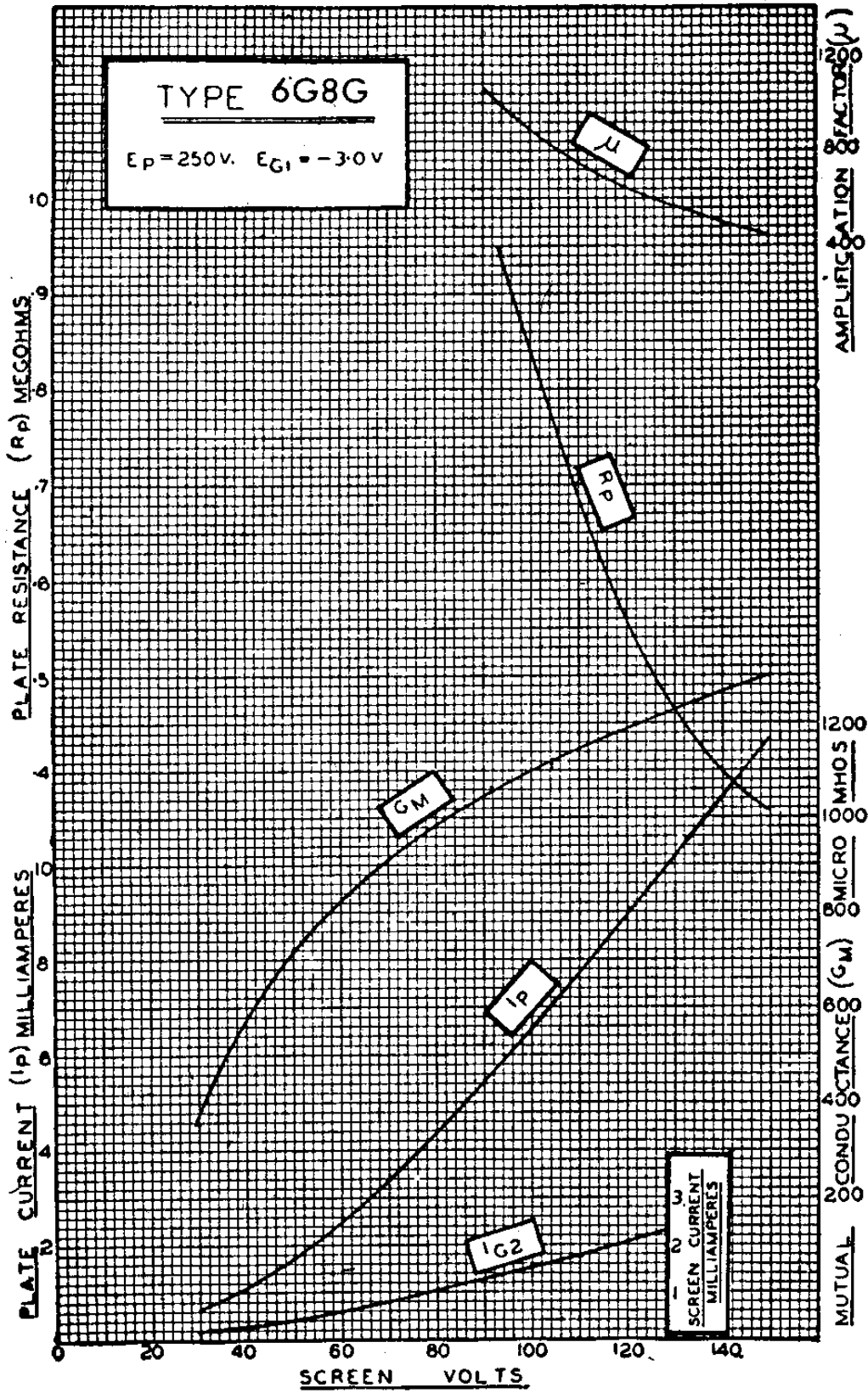
These units are independent of each other and from the pentode unit except for the common cathode sleeve. Their rectifying or detecting action may be used in half- or full-wave arrangement to supply signal voltage to the pentode unit and/or voltage to regulate the gain of the r-f or i-f amplifier stages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

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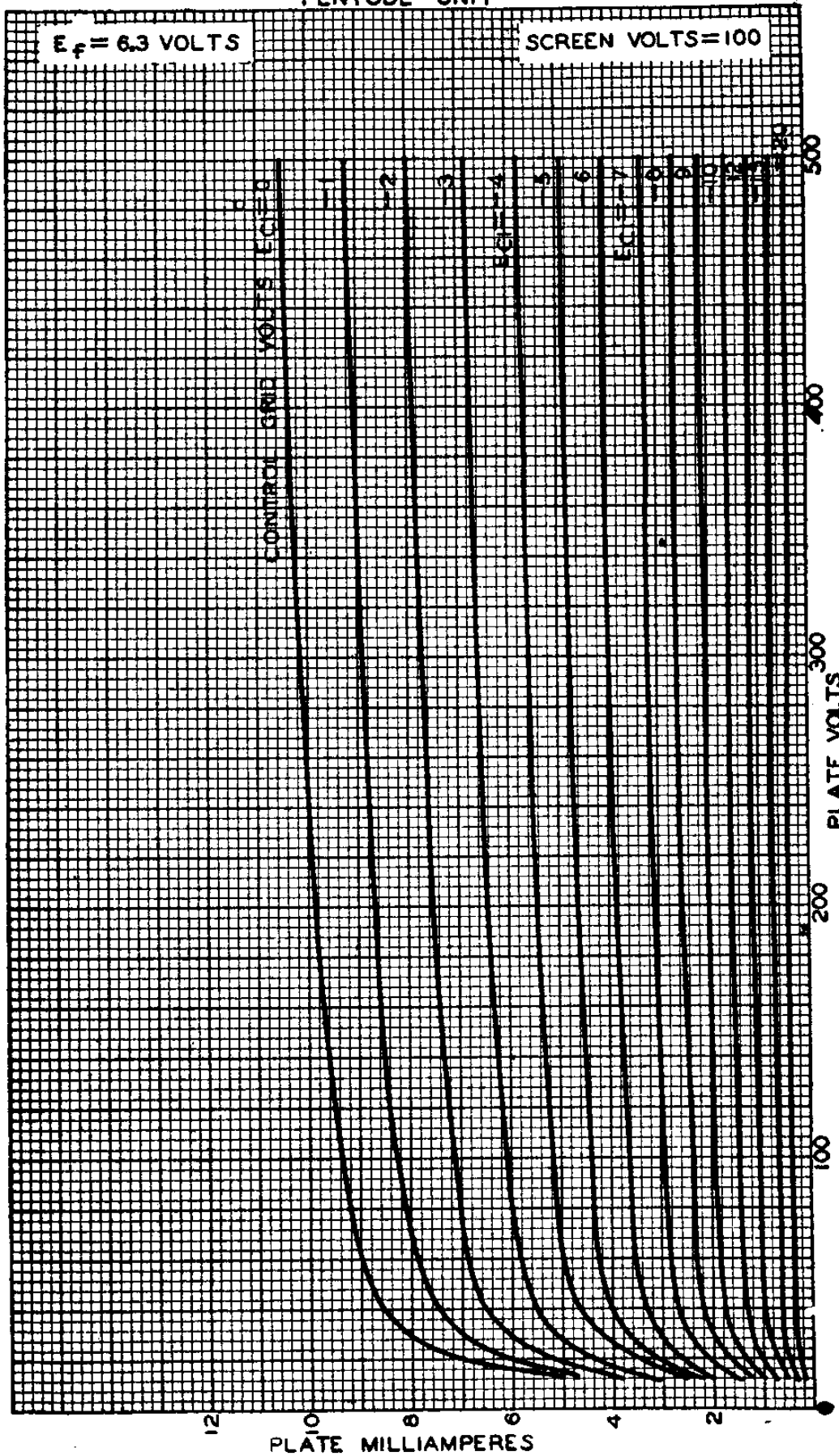
## DUO-DIODE SUPER-CONTROL PENTODE



# DUO-DIODE PENTODE

## AVERAGE PLATE CHARACTERISTICS

### PENTODE UNIT



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## DUO-DIODE PENTODE

### AVERAGE CHARACTERISTICS PENTODE UNIT

