

**6FH8****6FH8****MEDIUM-MU TRIODE—
THREE-PLATE TETRODE**

9-PIN MINIATURE TYPE

*For harmonic-generator applications***GENERAL DATA****Electrical:**

Heater, for Unipotential Cathode:

Voltage (AC or DC) $6.3 \pm 10\%$ volts

Current 0.45 amp

Direct Interelectrode Capacitances:⁰*Triode Unit:*Grid to plate 1.4 μmf Grid to cathode & heater. 2.6 μmf Plate to cathode & heater 1 μmf *Tetrode Unit:*Grid No.1 to plate No.1 0.06 max. μmf Grid No.1 to cathode & heater,
plate No.3, plate No.2,
and grid No.2 4.5 μmf Plate No.1 to cathode & heater,
plate No.3, plate No.2,
and grid No.2 1.4 μmf Tetrode grid No.1 to triode plate . . . 0.35 max. μmf Tetrode plate No.1 to triode plate. . . 0.008 max. μmf **Characteristics, Class A₁ Amplifier:***Triode Unit*

Plate Voltage 100 volts

Grid Voltage. -1 volt

Amplification Factor. 40

Plate Resistance (Approx.) 7400 ohms

Transconductance. 5400 μmhos

Plate Current 7.9 ma

Grid Voltage (Approx.) for plate

 $\mu\alpha = 100$ -7 volts*Tetrode Unit with plates No.2
and No.3 connected to cathode*

Plate-No.1 Voltage. 250 volts

Grid-No.2 Voltage 250 volts

Grid-No.1 Voltage -2 volts

Plate-No.1 Resistance (Approx.) 0.75 megohm

Transconductance, Grid No.1
to Plate No.1 4400 μmhos

Plate-No.1 Current. 7.3 ma

Grid-No.2 Current 1.4 ma

Grid-No.1 Voltage (Approx.) for

plate-No.1 $\mu\alpha = 100$ -7 volts⁰ With external shield JEDEC No.315 connected to cathode.



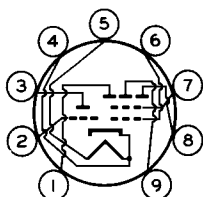
6FH8

MEDIUM-MU TRIODE— THREE-PLATE TETRODE

Mechanical:

Operating Position. Any
 Maximum Overall Length. 2-3/16"
 Maximum Seated Length. 1-15/16"
 Length, Base Seat to Bulb Top (Excluding tip). 1-9/16" $\pm$ 3/32"
 Diameter. 0.750" to 0.875"
 Dimensional Outline. See General Section
 Bulb. T6-1/2
 Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW. 9KP

Pin 1 - Tetrode
 Plate No.3
 Pin 2 - Triode Grid
 Pin 3 - Triode Plate
 Pin 4 - Heater,
 Cathode
 Pin 5 - Heater



Pin 6 - Tetrode
 Grid No.1
 Pin 7 - Tetrode
 Grid No.2
 Pin 8 - Tetrode
 Plate No.2
 Pin 9 - Tetrode
 Plate No.1

HARMONIC-GENERATOR SERVICE

Maximum Ratings, Design-Maximum Values:

	Triode Unit	Tetrode Unit	
PLATE VOLTAGE.	275 max.	-	volts
PLATE-No.1 VOLTAGE.	-	275 max.	volts
PLATE-No.2 VOLTAGE.	-	200 max.	volts
PLATE-No.3 VOLTAGE.	-	200 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE.	-	275 max.	volts
GRID-No.2 VOLTAGE.	-	See Grid-No.2 Input	

Rating Chart at front of Receiving Tube Section

GRID-No.1 (CONTROL- GRID) VOLTAGE:			
Negative-bias value.	40 max.	40 max.	volts
Positive-bias value.	0 max.	0 max.	volts
GRID-No.2 INPUT:			
For grid-No.2 voltages up to 137.5 volts.	-	0.45 max.	watt
For grid-No.2 voltages between 137.5 and 275 volts.	-	See Grid-No.2 Input	

Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION.	1.7 max.	-	watts
PLATE-No.1 DISSIPATION.	-	2.3 max.	watts
PLATE-No.2 DISSIPATION.	-	0.3 max.	watt
PLATE-No.3 DISSIPATION.	-	0.3 max.	watt



6FH8

6FH8

MEDIUM-MU TRIODE— THREE-PLATE TETRODE

Typical Operation:

Tetrode Unit with separate plate operation

Plates—No.1, No.2, and No.3 Voltage	100	volts
Grid—No.2 Voltage	50	volts
Grid—No.1 Voltage	-1	volt
Plate—No.1 Current.	1.6	ma
Plate—No.2 Current.	0.04	ma
Plate—No.3 Current.	0.04	ma
Grid—No.2 Current	0.3	ma
Transconductance (Approx.):		
Grid No.1 to plate No.1	2500	μ mhos
Grid No.1 to plate No.2	70	μ mhos
Grid No.1 to plate No.3	70	μ mhos

Maximum Circuit Values:

Triode Unit Tetrode Unit

Grid—No.1—Circuit Resistance:			
For fixed-bias operation.	0.5 max.	0.5 max.	megohm

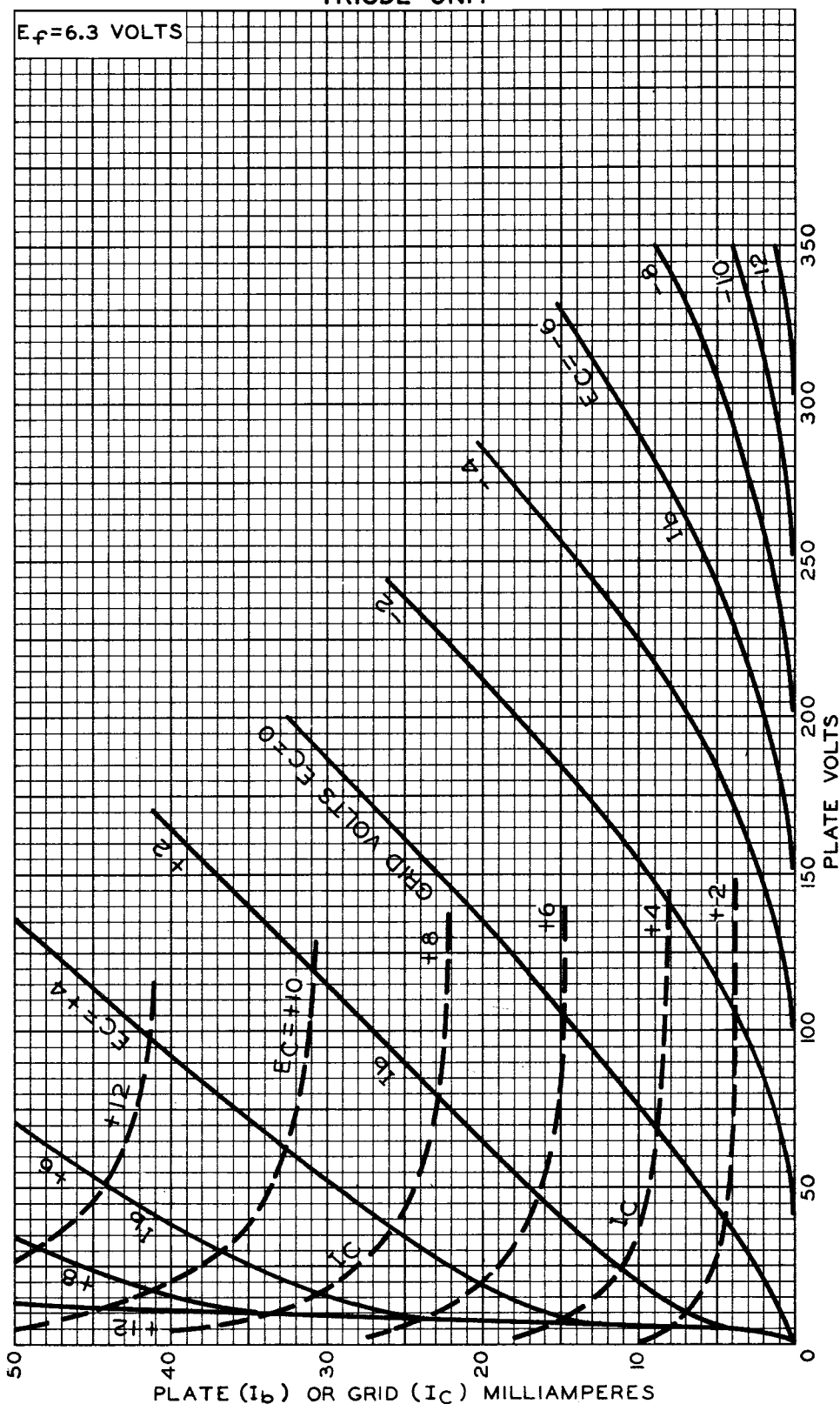
6FH8



6FH8

AVERAGE CHARACTERISTICS TRIODE UNIT

$E_f = 6.3$ VOLTS





6FH8

AVERAGE CHARACTERISTICS TETRODE UNIT

6FH8

$E_f = 6.3$ VOLTS

PLATES No 2 AND No 3 CONN-
TED TO CATHODE.

GRID-No 2 VOLTS=150

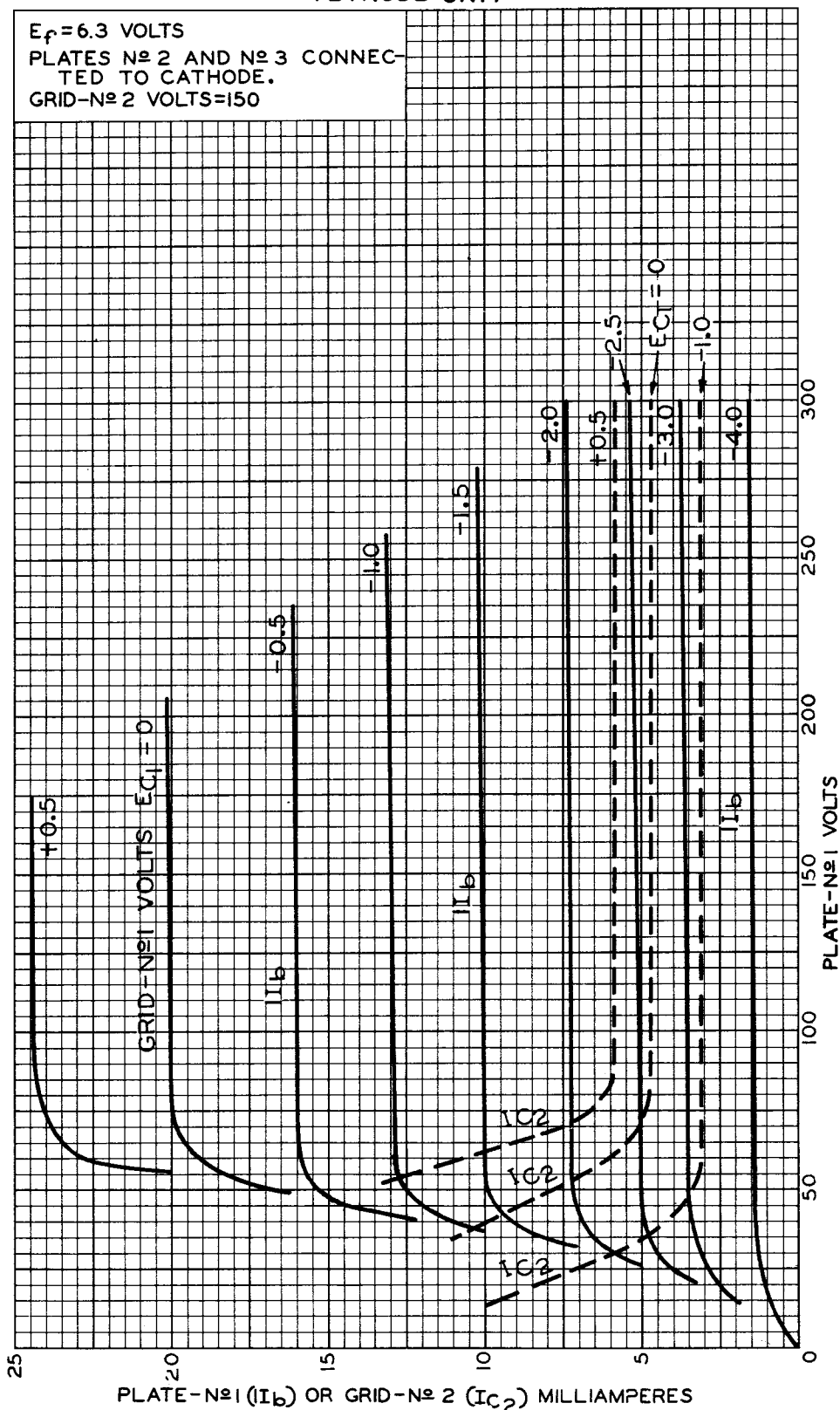


PLATE-No 1 (I_{b1}) OR GRID-No 2 (I_{c2}) MILLIAMPERES