

Medium-Mu Twin Triode

7-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC)	6.3	volts
Current	$0.45 \pm 6\%$	amp
Warm-up time (Average)	11	sec
Direct Interelectrode Capacitances (Approx.):		

	Without External Shield	With External Shield ^a	
<i>Unit No. 1</i>			
Grid to plate	1.6	1.5	μmf
Grid to cathode and heater . . .	2.2	2.6	μmf
Plate to cathode and heater . . .	0.4	1.6	μmf
<i>Unit No. 2</i>			
Grid to plate	1.6	1.5	μmf
Grid to cathode and heater . . .	2.2	2.6	μmf
Plate to cathode and heater . . .	0.4	1	μmf

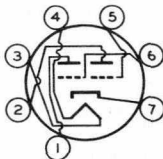
Characteristics, Class A₁ Amplifier (Each Unit):

Plate Supply Voltage	100	volts
Cathode Resistor ^b	50 Ω	ohms
Amplification Factor	38	
Plate Resistance (Approx.)	7100	ohms
Transconductance	5300	μmhos
Plate Current	8.5	ma

Mechanical:

Operating Position	Any
Maximum Overall Length	2-1/8"
Maximum Seated Length	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip) . . .	1-1/2" $\pm$ 3/32"
Diameter	0.650" to 0.750"
Dimensional Outline	See <i>General Section</i>
Bulb	T5-1/2
Base	Small-Button Miniature 7-Pin (JEDEC No. E7-1)
Basing Designation for BOTTOM VIEW	.7BF

Pin 1—Plate of
Unit No. 2
Pin 2—Plate of
Unit No. 1
Pin 3—Heater
Pin 4—Heater



Pin 5—Grid of
Unit No. 1
Pin 6—Grid of
Unit No. 2
Pin 7—Cathode



6J6A

AMPLIFIER — Class A₁

Values are for Each Unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	300 max.	volts
GRID VOLTAGE:		
Positive-bias value	0 max.	volts
PLATE DISSIPATION	1.5 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	100 max.	volts
Heater positive with respect to cathode.	100 max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance:		
For cathode-bias operation	0.5 max.	megohm

RF POWER AMPLIFIER & OSCILLATOR — Class C Telegraphy

Key-down conditions per tube without modulation

Values are for Each Unit

Maximum Ratings, Design-Center Values:

DC PLATE VOLTAGE	300 max.	volts
DC GRID VOLTAGE:		
Negative-bias value	40 max.	volts
Positive-bias value	0 max.	volts
DC PLATE CURRENT	15 max.	ma
DC GRID CURRENT	8 max.	ma
DC PLATE INPUT	4.5 max.	watts
PLATE DISSIPATION	1.5 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	100 max.	volts
Heater positive with respect to cathode.	100 max.	volts

Typical Push-Pull Operation at Frequencies up to 50 Mc:^d

Values are for Both Units

DC Plate Voltage	150	volts
DC Grid Voltage:		
From a fixed supply of	-10	volts
From a grid resistor of	625	ohms
From a cathode resistor of	220	ohms
DC Plate Current	30	ma
DC Grid Current (Approx.) ^e	16	ma
Driving Power (Approx.) ^e	0.35	watt
Useful Power Output (Approx.)	3.5	watts

^a With external shield JEDEC No.316 connected to cathode.

^b Fixed-bias operation is not recommended.

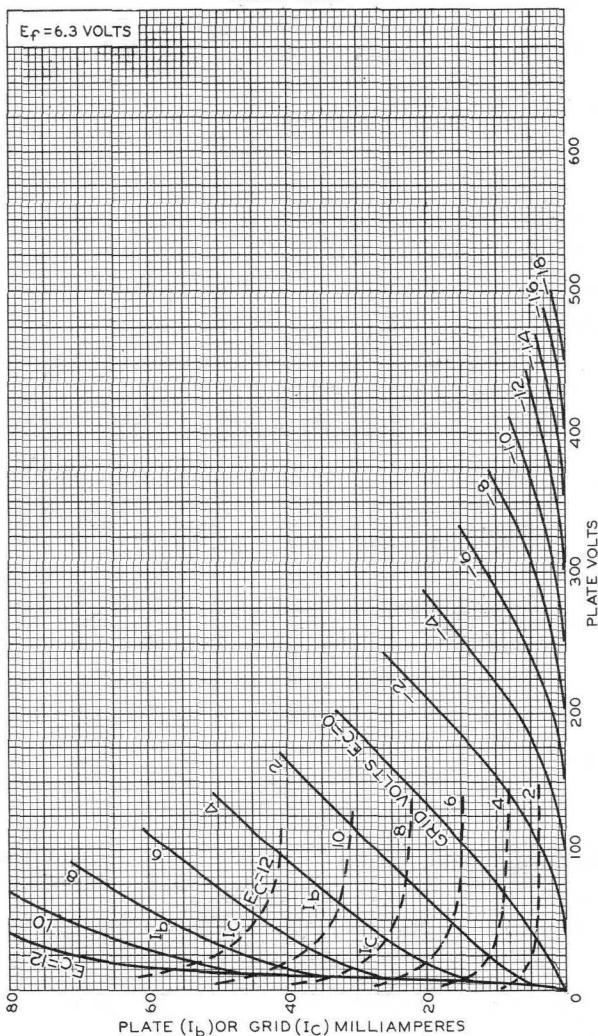
^c Value is for both units operating at the specified conditions.

^d Approximately 1 watt can be obtained when the 6J6A is used at 250 Mc as a push-pull oscillator with a plate voltage of 150 volts, with maximum-rated plate dissipation, and with a grid resistor of 2000 ohms common to both units

^e For effect of load resistance on grid current and driving power, refer to **TUBE RATINGS—Grid Current and Driving Power** in the General Section.



AVERAGE CHARACTERISTICS Each Unit

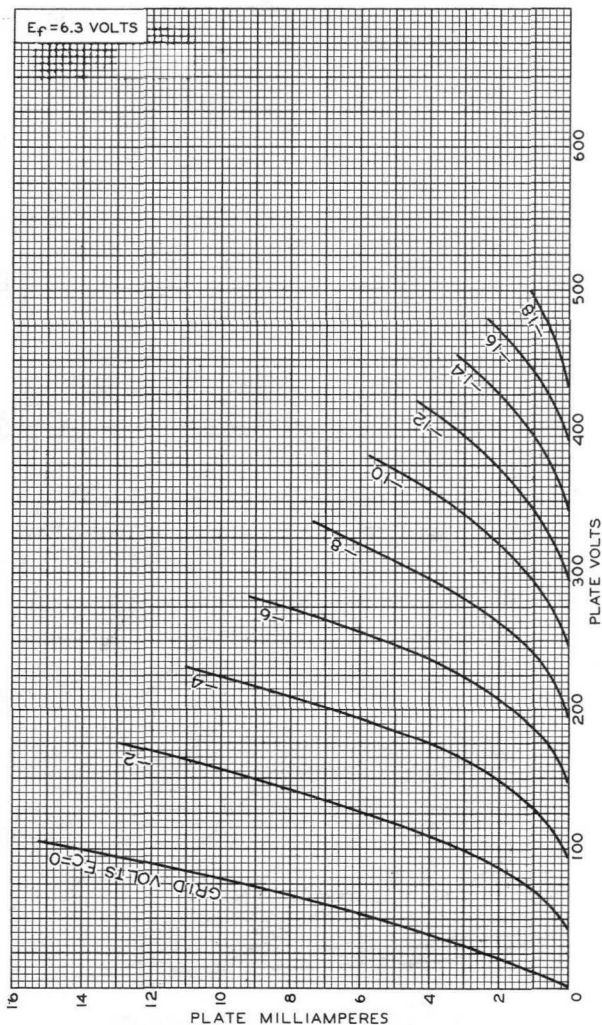


92CM-6403RI



6J6A

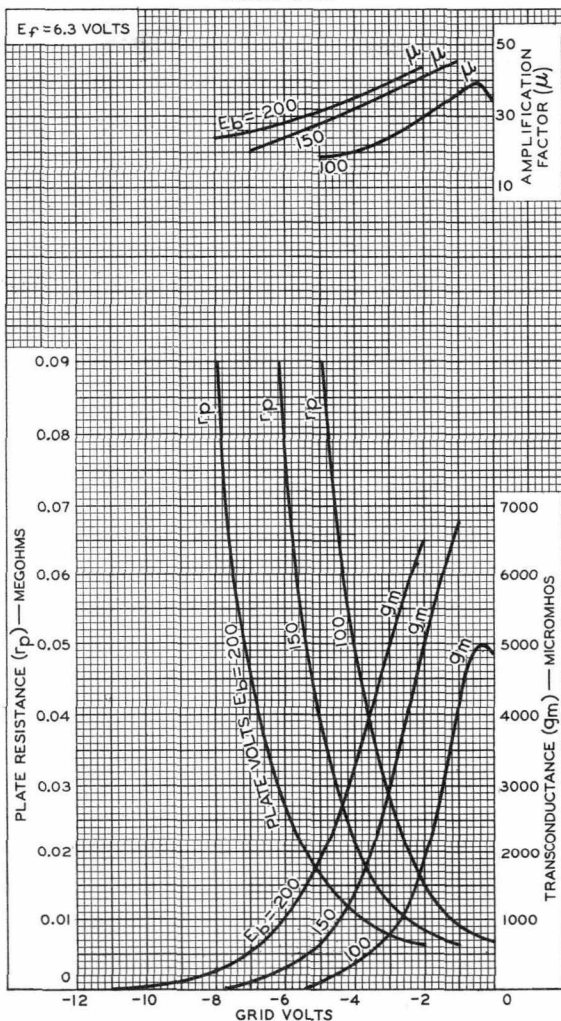
AVERAGE PLATE CHARACTERISTICS Each Unit



92CM-6402RI



AVERAGE CHARACTERISTICS Each Unit



92CM-7672RI



6-11

