#### COATED FILAMENT



GLASS BULB

SERIES FILAMENT

E, APPLIED BETWEEN
PINS 147

E g

2.8 VOLTS
110 MA.

PARALLEL FILAMENT
F APPLIED BETWEEN
PIN 4 AND PINS 147
7 TIED TOGETHER.
REFERRED TO PIN 4

1.4 VOLTS
220 MA.

A SHUNTING RESISTOR MUST BE CONNECTED BETWEEN PINS 1 AND 4 FOR SERIES-FILAMENT OPERATION. ITS VALUE SHOULD BE SUCH THAT THE VOLTAGE ACROSS THE SHUNTED SECTION IS EQUAL TO THE VOLTAGE BETWEEN PINS 4 AND 7. AN ADDITIONAL SHUNTING RESISTOR MAY BE RECESSARY BETWEEN PINS 1 AND 7 IF OTHER TUBES USED IN SERIES-FILAMENT ARRANGEMENT CONTRIBUTE TO THE FILAMENT CURRENT OF THE 3A5.

BOTTOM VIEW
MINIATURE BUTTON
7 PIN BASE

ANY MOUNTING POSITION

THE 3A5 IS INTENDED FOR USE IN HIGH FREQUENCY APPLICATIONS. THE RELATIVELY LARGE FILAMENT EMPLOYED IN THE 3A5 ENABLES IT TO SUPPLY THE HIGH PEAK CURRENTS REQUIRED IN RF POWER APPLICATIONS. IN CLASS C SERVICE, A 3A5 WITH ITS UNITS IN PUSH-PULL WILL DELIVER A POWER OUTPUT OF APPROXIMATELY 2 WATTS AT 40 MEGACYCLES. IT MAY BE USED AT STILL HIGHER FREQUENCIES WITH REDUCED EFFICIENCY. EACH TRIODE MAY BE USED INDEPENDENTLY OF THE OTHER.

#### DIRECT INTERELECTRODE CAPACITANCES

	TRIODE Unit 1	TRIODE Unit 2	
GRID TO PLATE: (G TO P)	3.2	3.2	μμf
INPUT: (G TO H)	0.9	0.9	μμf
OUTPUT: (P TO H)	1.0	1.0	μμf
PLATE TO PLATE: (P TO P)	0.	.32	μμf

#### RATINGS ENTERPRETED ACCORDING TO RMA STANDARD M8-210

	AF Amplifier	RF Amplifier	
FILAMENT VOLTAGE	1.4 2.8	1.4 2.8	VOLTS
MAXIMUM PLATE VOLTAGE	135	135	VOLTS
MAXIMUM DC GRID VOLTAGE		-30	VOLTS
MAXIMUM PLATE CURRENT	5		MA.
MAXIMUM DC PLATE CURRENT (PI		15	MA.
MAXIMUM DC GRID CURRENT (PE	•	2.5	MA.
MAXIMUM PLATE DISSIPATION	0.5		WATT
MAXIMUM PLATE DISSIPATION (I MAXIMUM PLATE INPUT (PER UN		1.0	WATT
MAN THOM TENTE INPUT (PER UN	11)	2.0	WATT

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## **TUNG-SOL**

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## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

### AF AMPLIFIER

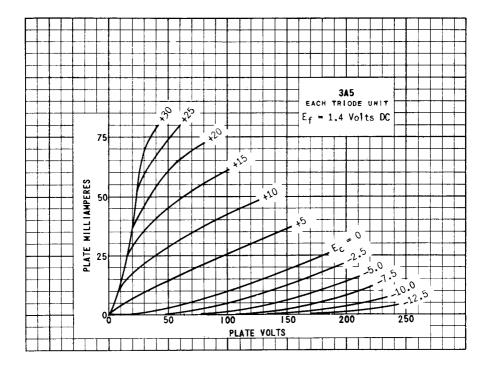
HEATER VOLTAGE	1.4 2.8	VOLTS
HEATER CURRENT	220 110	MA .
PLATE VOLTAGE	90	VOLTS
GRID VOLTAGE	-2.5	VOL TS
PLATF CURRENT	3.7	MA.
PLATE RESISTANCE	8 300	OHMS
TRANSCONDUCTANCE	1 800	<b>MHOS</b>
AMPLIFICATION FACTOR	15	

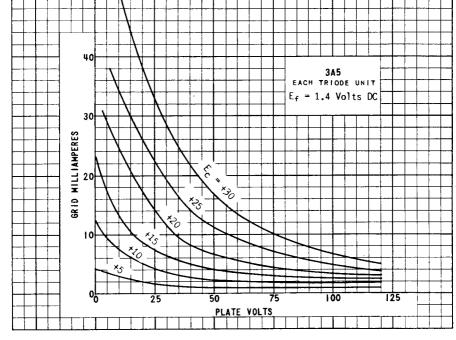
# RF POWER AMPLIFIER AND OSCILLATOR-CLASS "C' TELEGRAPHY

# AT 40 MC WITH BOTH UNITS IN PUSH-PULL (KEY-DOWN CONDITIONS PER TUBE WITHOUT MODULATION)

FILAMENT VOLTAGE FILAMENT CURRENT DC PLATE VOLTAGE	1.4 2.8 220 110 135	VOLTS MA. VOLTS
DC GRID VOLTAGE:		
FROM A FIXED SUPPLY OF	-20	VOLTS
FROM A GRID RESISTOR OF	4 000	OHMS
FROM A CATHODE RESISTOR OF	570	OHMS
PEAK RF GRID-TO-GRID VOLTAGE	90	VOLTS
DC PLATE CURRENT	30	MA.
DC GRID CURRENT (APPROX.)	5	MA -
DRIVING POWER (APPROX.)	0.2	WATT
POWER OUTPUT (APPROX.)	2	WATTS

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