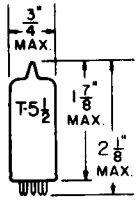
TUNG-SOL

POWER AMPLIFIER PENTODE

MINIATURE TYPE

COATED FILAMENT



GLASS BULB

SERIES FILAMENT

E_f APPLIED BETWEEN PINS 1 & 7

E_{g1} REFERRED TO PIN 1

PARALLEL FILAMENT

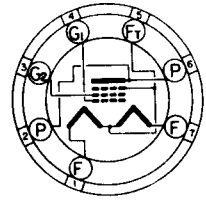
E_f APPLIED BETWEEN PIN 5 AND PINS 1 & 7 TIED TOGETHER.

E_{g1} REFERRED TO PIN 5

2.8 VOLTS	1.4 VOLTS
0.1 AMP.	0.2 AMP.

DC

A SHUNTING RESISTOR MUST BE CONNECTED BETWEEN PINS 1 AND 5 FOR SERIES-FILAMENT OPERATION. ITS VALUE SHOULD BE SUCH THAT THE VOLTAGE ACROSS THE SHUNTED SECTION IS EQUAL TO THE VOLTAGE BETWEEN PINS 5 AND 7. AN ADDITIONAL SHUNTING RESISTOR MAY BE NECESSARY BETWEEN PINS 1 AND 7 IF OTHER TUBES USED IN SERIES-FILAMENT ARRANGEMENT CONTRIBUTE TO THE FILAMENT CURRENT OF THE 3A4.



BOTTOM VIEW

MINIATURE BUTTON 7 PIN BASE

ANY MOUNTING POSITION

THE 3A4 IS DESIGNED FOR USE IN COMPACT, LIGHTWEIGHT, PORTABLE EQUIPMENT. THE RELATIVELY LARGE FILAMENT EMPLOYED IN THE 3A4 ENABLES IT TO SUPPLY THE HIGH PEAK CURRENTS REQUIRED IN RF POWER APPLICATIONS. IN RF AMPLIFIER SERVICE THE 3A4 WILL DELIVER A POWER OUTPUT OF ABOUT 1.2 WATTS AT 10 MEGACYCLES. IT IS RECOMMENDED THAT NO MATERIAL BE PERMITTED TO OBSTRUCT THE HOLE IN THE BASE SOCKET AS THIS TYPE MAY BE MANUFACTURED WITH THE EXHAUST-TUBE TIP AT THE BASE END.

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

	AF POWER AMPLIFIER	RF POWER AMPLIFIER	
MAXIMUM PLATE VOLTAGE	150	150	VOLTS
MAXIMUM SCREEN VOLTAGE	90	135	VOLTS
MAXIMUM GRID VOLTAGE	---	-30	VOLTS
MAXIMUM PLATE CURRENT	---	20	MA.
MAXIMUM GRID CURRENT	---	0.25	MA.
MAXIMUM TOTAL CATHODE CURRENT	18	25	MA.
MAXIMUM PLATE INPUT	---	3.0	WATTS
MAXIMUM PLATE DISSIPATION	2.0	2.0	WATTS
MAXIMUM SCREEN DISSIPATION	0.4	0.9	WATT

DIRECT INTERELECTRODE CAPACITANCES

WITH NO EXTERNAL SHIELD

GRID TO PLATE (MAX.)	0.34	μμf
INPUT	4.8	μμf
OUTPUT	4.2	μμf

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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

VALUES FOR SERIES-FILAMENT OPERATION WILL BE APPROXIMATELY THE SAME AS FOR PARALLEL-FILAMENT OPERATION.

	PARALLEL FILAMENT ARRANGEMENT			
	AF POWER AMPLIFIER		RF POWER AMPLIFIER AT 10 MC.	
PLATE VOLTAGE	135	150	150	VOLTS
SCREEN VOLTAGE	90	90	135	VOLTS
GRID VOLTAGE	-7.5	-8.4	---	VOLTS
PEAK AF GRID VOLTAGE	7.5	8.4	---	VOLTS
ZERO-SIGNAL PLATE CURRENT	14.8	13.3	---	MA.
ZERO-SIGNAL SCREEN CURRENT	2.6	2.2	---	MA.
MAXIMUM-SIGNAL PLATE CURRENT	14.9	14.1	18.3	MA.
MAXIMUM-SIGNAL SCREEN CURRENT	3.5	3.5	6.5	MA.
GRID CURRENT	---	---	0.13	MA.
GRID RESISTOR	---	---	0.2	MEGOHM
LOAD RESISTANCE	8 000	8 000	---	OHMS
PLATE RESISTANCE	90 000	100 000	---	OHMS
TRANSCONDUCTANCE	1 900	1 900	---	μMHOS
MAXIMUM-SIGNAL POWER OUTPUT	0.6	0.7	1.2 (APPROX.)	WATTS
TOTAL HARMONIC DISTORTION	5.0	6.0	---	PER CENT

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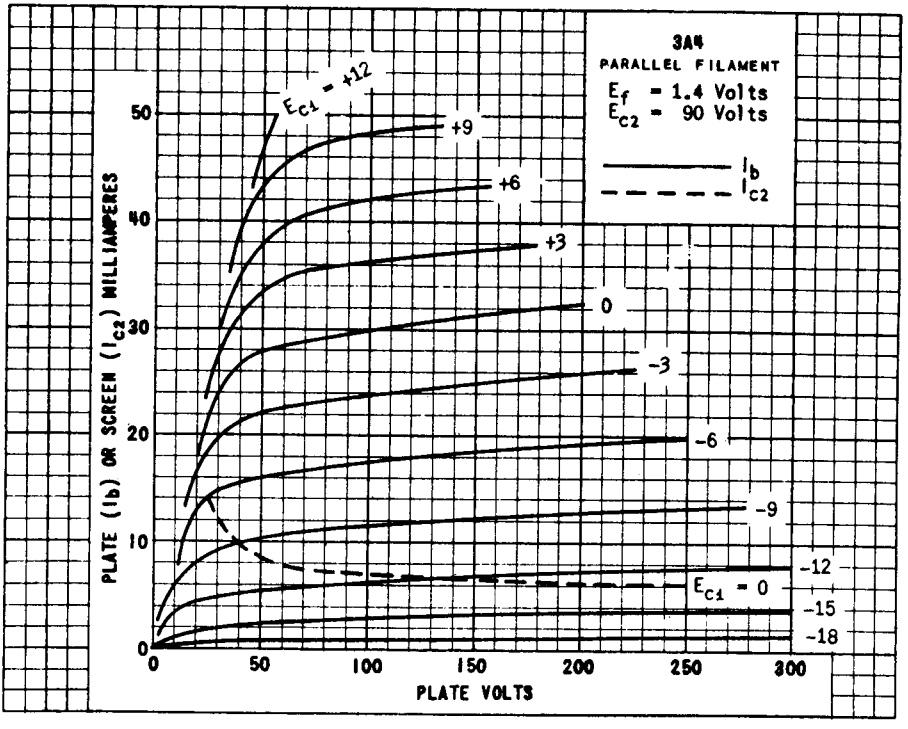

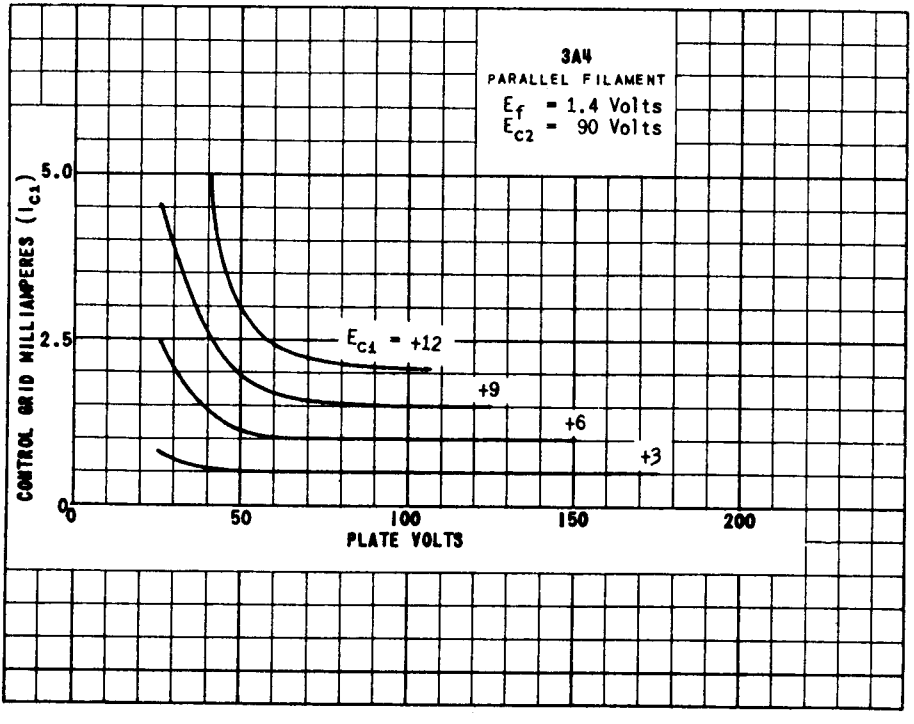

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