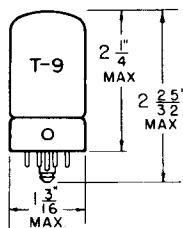


TUNG-SOL

BEAM PENTODE



GLASS BULB

COATED FILAMENT

SERIES FILAMENT

E_f APPLIED BETWEEN PINS 1 & 8
 E_{g1} REFERRED TO PIN 8

2.8 VOLTS
 50 MA.

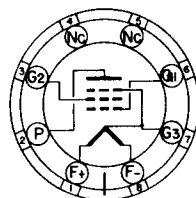
PARALLEL FILAMENT

E_f APPLIED BETWEEN PIN 7 AND PINS 1 & 8 TIED TOGETHER.
 E_{g1} REFERRED TO PIN 7

1.4 VOLTS
 100 MA.

DC

A SHUNTING RESISTOR MUST BE CONNECTED BETWEEN PINS 7 AND 8 FOR SERIES-FILAMENT OPERATION. ITS VALUE SHOULD BE SUCH THAT THE VOLTAGE ACROSS THE SHUNTED SECTION IS EQUAL TO THE VOLTAGE BETWEEN PINS 1 AND 7. AN ADDITIONAL SHUNTING RESISTOR MAY BE NECESSARY BETWEEN PINS 1 AND 8 IF OTHER TUBES USED IN SERIES-FILAMENT ARRANGEMENT CONTRIBUTE TO THE FILAMENT CURRENT OF THE 3LF4.



BOTTOM VIEW

LOCK-IN
 8 PIN BASE

68B

ANY MOUNTING POSITION

THE 3LF4 IS A FILAMENTARY TYPE BEAM POWER AMPLIFIER USING THE LOCK-IN CONSTRUCTION. IT IS CHARACTERIZED BY A LOW CURRENT DRAIN FILAMENT AND IS DESIGNED FOR SERVICE IN THE OUTPUT STAGE OF THREE-WAY PORTABLE RECEIVERS.

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

	SERIES FILAMENT	PARALLEL FILAMENT	
MAXIMUM FILAMENT VOLTAGE	2.8	1.4	VOLTS
MAXIMUM PLATE VOLTAGE	110	110	VOLTS
MAXIMUM GRID #2 VOLTAGE	110	110	VOLTS
MAXIMUM CATHODE CURRENT (ZERO SIGNAL)	6 ^A	12	MA.
MAXIMUM GRID #1 CIRCUIT RESISTANCE	1	1	MEGOHM

^A EACH 1.4 VOLT FILAMENT SECTION

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER

	SERIES FILAMENT		
FILAMENT VOLTAGE	2.8	2.8	VOLTS
FILAMENT CURRENT	50	50	MA.
PLATE VOLTAGE	90	110	VOLTS
GRID #2 VOLTAGE	90	110	VOLTS
GRID #1 VOLTAGE	-4.5	-6.6	VOLTS
PEAK AF SIGNAL VOLTAGE	4.5	5.1	VOLTS
PLATE CURRENT	8	8.5	MA.
GRID #2 CURRENT	1	1.1	MA.
PLATE RESISTANCE (APPROX.)	0.08	0.11	MEGOHM
TRANSCONDUCTANCE	2 000	2 000	μMHOS
LOAD RESISTANCE	8 000	8 000	OHMS
TOTAL HARMONIC DISTORTION (APPROX.)	8.5	8.5	PERCENT
POWER OUTPUT	230	330	MW

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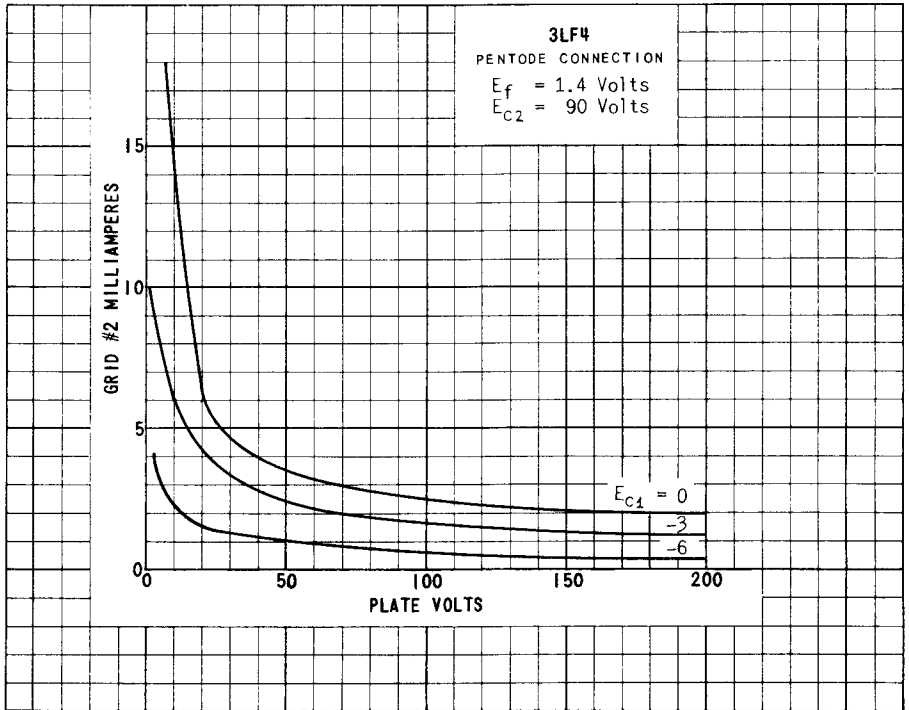
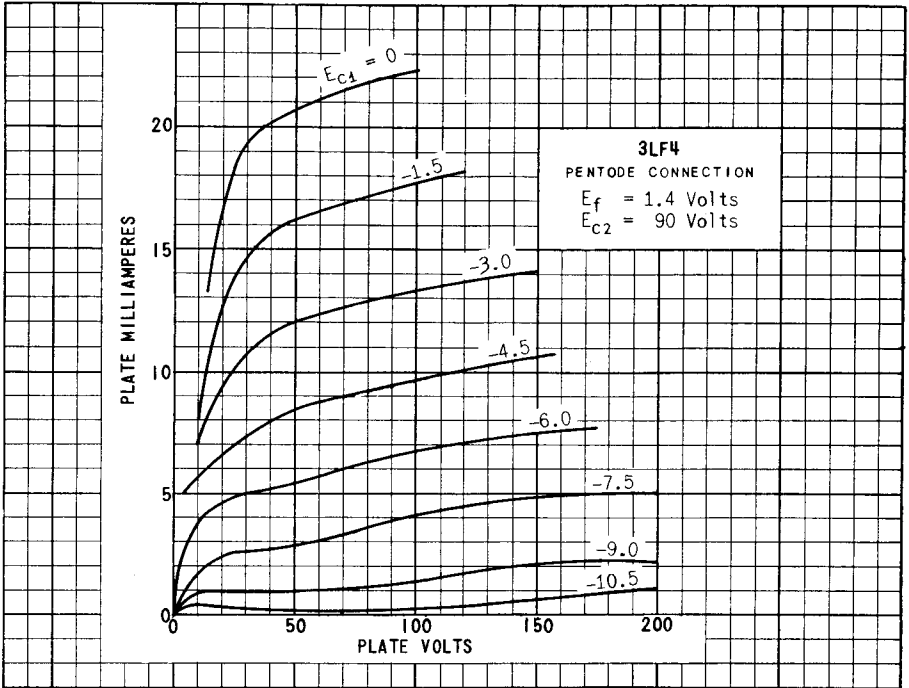
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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER

	PARALLEL FILAMENT			
	1.4	1.4	1.4	
FILAMENT VOLTAGE	1.4	1.4	1.4	VOLTS
FILAMENT CURRENT	100	100	100	MA.
PLATE VOLTAGE	85	90	110	VOLTS
GRID #2 VOLTAGE	85	90	110	VOLTS
GRID #1 VOLTAGE	-5	-4.5	-6.6	VOLTS
PEAK AF SIGNAL VOLTAGE	5	4.5	5.4	VOLTS
PLATE CURRENT	7	9.5	10	MA.
GRID #2 CURRENT	0.8	1.3	1.4	MA.
PLATE RESISTANCE (APPROX.)	0.07	0.09	0.1	MEGOHM
TRANSCONDUCTANCE	1 950	2 200	2 000	μMHOS
LOAD RESISTANCE	9 000	8 000	8 000	OHMS
TOTAL HARMONIC DISTORTION (APPROX.)	5.5	6	6	PERCENT
POWER OUTPUT	250	270	400	MW

SIMILAR TYPE REFERENCES: Ratings and characteristics are identical to type 3Q5GT.



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