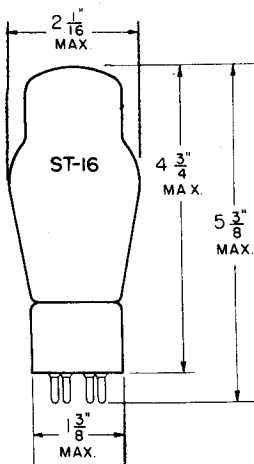


TUNG-SOL



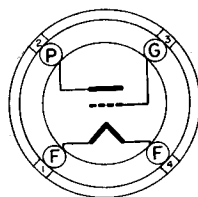
TRIODE POWER AMPLIFIER

COATED FILAMENT
2.5 VOLTS 2.5 AMPERE
AC OR DC

GLASS BULB

MOUNTING POSITION

THIS TUBE SHOULD BE MOUNTED VERTICALLY. HOWEVER HORIZONTAL OPERATION IS PERMISSIBLE IF PINS 1 AND 4 ARE IN A HORIZONTAL PLANE.



BOTTOM VIEW

MEDIUM
4-PIN BASE

THE 2A3 IS A FILAMENT TYPE TRIODE POWER AMPLIFIER. IT IS DESIGNED FOR SERVICE IN THE OUTPUT STAGE OF AUDIO AMPLIFIERS WHERE HIGH OUTPUT AND LOW HARMONIC DISTORTION IS DESIRED.

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD MB-210

MAXIMUM PLATE VOLTAGE	300	VOLTS
MAXIMUM PLATE DISSIPATION	15	WATTS

DIRECT INTERELECTRODE CAPACITANCES (APPROX.)

GRID TO PLATE	16.5	$\mu\mu\text{f}$
INPUT	7.5	$\mu\mu\text{f}$
OUTPUT	5.5	$\mu\mu\text{f}$

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER

SINGLE TUBE

PLATE VOLTAGE	250	VOLTS
GRID VOLTAGE, (MEASURED FROM MID-POINT OF AC OPERATED FILAMENT)	-45	VOLTS
MAXIMUM GRID CIRCUIT RESISTANCE		
FIXED BIAS	0.05	MEGOHM
SELF BIAS	0.5	MEGOHM
PLATE CURRENT	60	MA.
PLATE RESISTANCE	800	OHMS
TRANSCONDUCTANCE	5 250	μMHOS
AMPLIFICATION FACTOR	4.2	
LOAD RESISTANCE	2 500	OHMS
POWER OUTPUT	3.5	WATTS
SECOND HARMONIC DISTORTION	5.0	PER CENT

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TUNG-SOL

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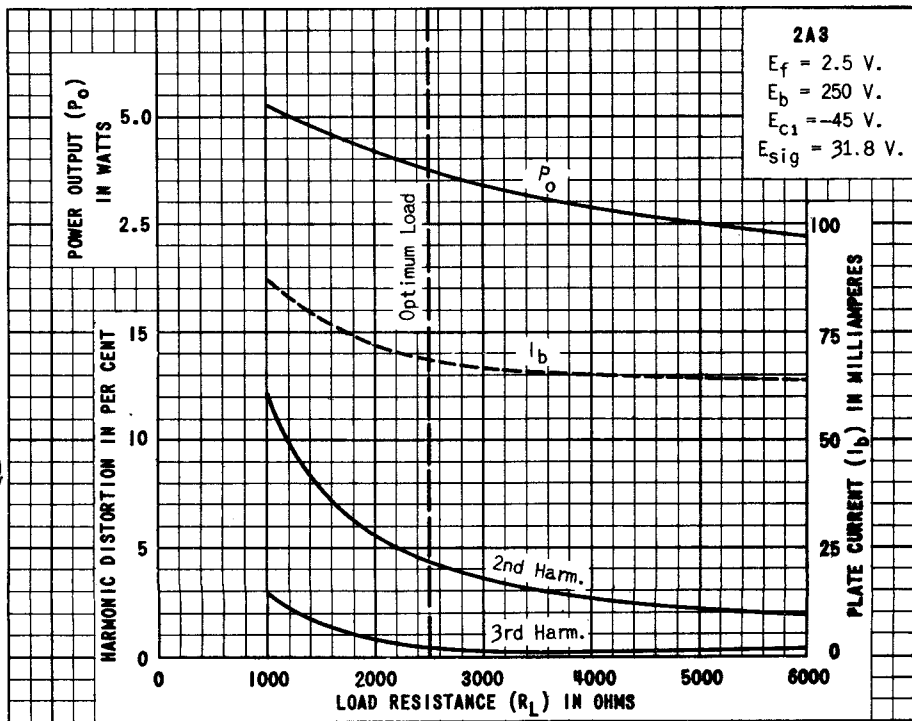
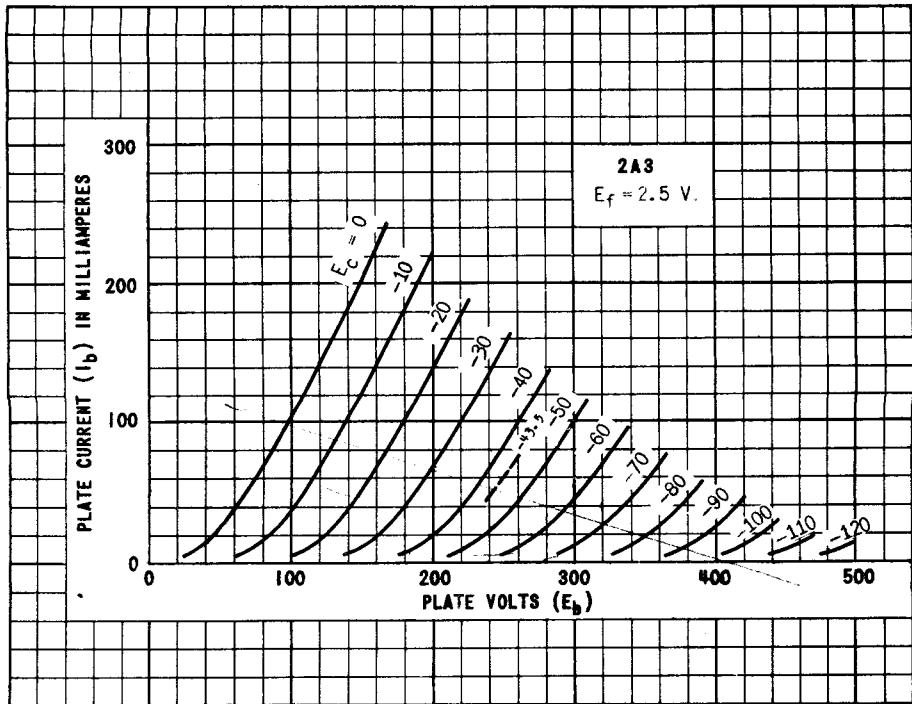
CLASS AB₁ AMPLIFIER — PUSH-PULL

VALUES ARE FOR TWO TUBES

	FIXED BIAS	SELF BIAS	
PLATE VOLTAGE	300	300	VOLTS
GRID VOLTAGE ^A	-62	-	VOLTS
CATHODE BIAS RESISTOR	-	780	OHMS
ZERO-SIGNAL PLATE CURRENT	80	80	MA.
LOAD RESISTANCE (PER TUBE)	750	1 250	OHMS
EFFECTIVE LOAD RESISTANCE (PLATE TO PLATE)	3 000	5 000	OHMS
TOTAL HARMONIC DISTORTION	2.5	5.0	PER CENT
POWER OUTPUT	15	10	WATTS

^A GRID VOLTAGE MEASURED FROM MID-POINT OF AC OPERATED FILAMENT. THE TOTAL EFFECTIVE GRID CIRCUIT RESISTANCE SHOULD BE KEPT AT A MINIMUM. UNDER FIXED BIAS CONDITIONS IT SHOULD NEVER EXCEED 50,000 OHMS WHILE WITH SELF BIAS IT SHOULD NEVER EXCEED 0.5 MEGOHM.

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2A3

$E_c = 2.5 \text{ V.}$
 $E_b = 250 \text{ V.}$
 $E_c = -45 \text{ V.}$
 $R_L = 2500 \text{ ohms}$

