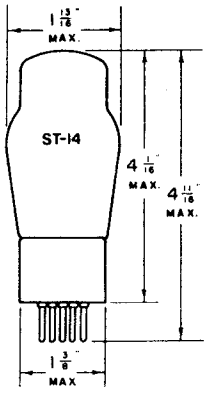
TUNG-SOL



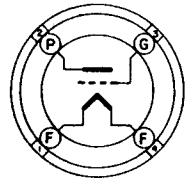
TRIODE POWER AMPLIFIER

COATED FILAMENT

2.5 VOLTS 1.5 AMPERES
AC OR DC

GLASS BULB

MEDIUM 4 PIN BASE



4D

BOTTOM VIEW

THE TUNG-SOL 45 IS A FILAMENT TYPE TRIODE POWER AMPLIFIER DESIGNED FOR SERVICE IN THE OUTPUT STAGE OF AUDIO AMPLIFIERS WHERE HIGH OUTPUT AND LOW HARMONIC DISTORTION ARE DESIRED.

OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

PLATE VOLTAGE	180	250	275 MAX.	VOLTS
GRID VOLTAGE G	−31.5	−50	−56	VOLTS
GRID CIRCUIT RESISTANCE MAX.				
SELF BIAS	1	1	1	MEGOHM
FIXED BIAS	0.1	0.1	0.1	MEGOHM
PLATE CURRENT	31	34	36	MA.
PLATE RESISTANCE	1650	1610	1700	OHMS
TRANSCONDUCTANCE	2125	2175	2050	µMHOS
AMPLIFICATION FACTOR	3.5	3.5	3.5	
LOAD RESISTANCE	2700	3900	4600	OHMS
POWER OUTPUT	0.825	1.6	2.0	WATTS

PUSH-PULL CLASS AB_2 AMPLIFIER[T]

	FIXED BIAS	SELF BIAS	
PLATE VOLTAGE	275 MAX.	275 MAX.	VOLTS
GRID VOLTAGE G	−68		VOLTS
SELF BIAS RESISTOR		775	OHMS
ZERO-SIG. PLATE CURRENT	28	36	MA.
MAX.-SIG. PLATE CURRENT	138	90	MA.
LOAD RESISTANCE PLATE TO PLATE	3200	5060	OHMS
TOTAL HARMONIC DISTORTION	5	5	PER CENT
AVERAGE POWER INPUT GRID TO GRID	656	460	MILLIWATTS
POWER OUTPUT	18	12	WATTS

(CONTINUED NEXT PAGE)

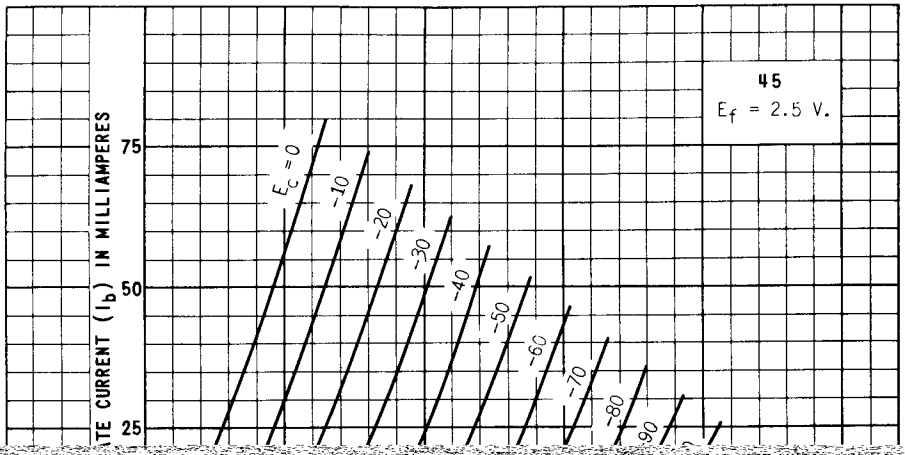
TUNG-SOL LAMP WORKS INC. RADIO TUBE DIVISION NEWARK, NEW JERSEY, U. S. A.

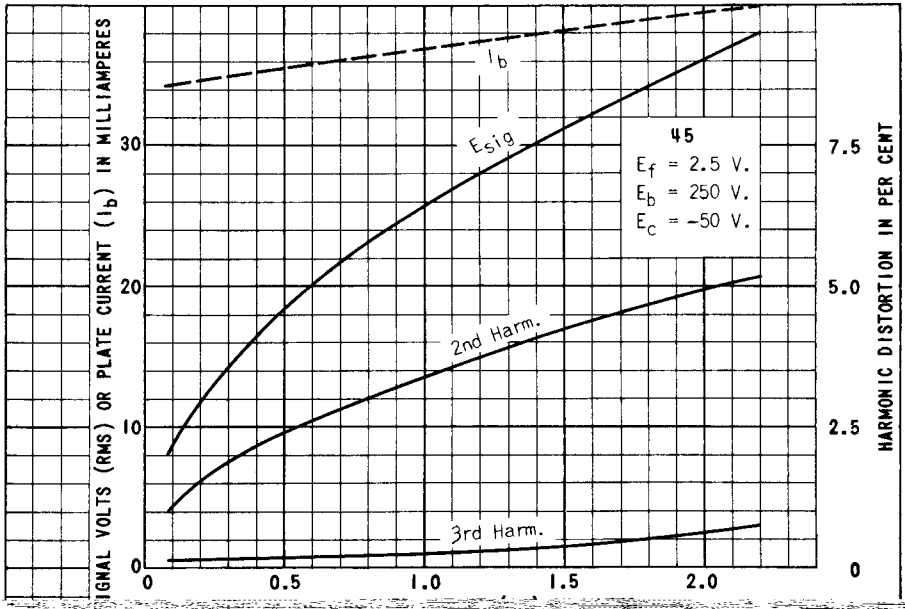
[G] GRID VOLTAGE MEASURED FROM MID-POINT OF AC OPERATED FILAMENT.

[T] VALUES SPECIFIED FOR TWO TUBES.

DIRECT INTERELECTRODE CAPACITANCES

GRID TO FILAMENT	4	μμf
PLATE TO FILAMENT	3	μμf
GRID TO PLATE	7	μμf


45
E_f = 2.5 V.
TE CURRENT (I_b) IN MILLIAMPERES
75
50
25
E_c = 0
-10
-20
-30
-40
-50
-60
-70
-80
-90


SIGNAL VOLTS (RMS) OR PLATE CURRENT (I_b) IN MILLIAMPERES
HARMONIC DISTORTION IN PER CENT
I_b
E_{sig}
2nd Harm.
3rd Harm.
45
E_f = 2.5 V.
E_b = 250 V.
E_c = -50 V.
0
10
20
30
0
2.5
5.0
7.5
0
0.5
1.0
1.5
2.0