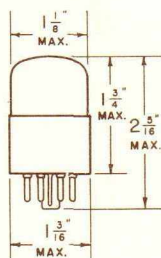


TUNG-SOL



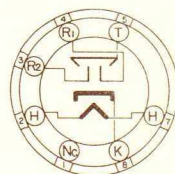
CATHODE RAY TUNING INDICATOR

UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 0.15 AMPERE

AC OR DC



G-7A

GLASS BULB

SMALL 7 PIN OCTAL BASE

THE TUNG-SOL 6AF6G CONSISTS OF A CIRCULAR FLUORESCENT SCREEN WITH TWO INDEPENDENT INDICATING SHADOW ANGLES, EACH CONTROLLED BY A RAY-CONTROL ELECTRODE. WHEN THE 6AF6G IS USED AS A TUNING INDICATOR THE SHADOW ANGLE IS CONTROLLED BY POSITIVE VOLTAGES APPLIED TO THE RAY CONTROL ELECTRODES.

OPERATING CONDITIONS AND CHARACTERISTICS

TARGET VOLTAGE	MAX.	135	VOLTS
TARGET VOLTAGE	MIN.	90	VOLTS
RAY-CONTROL ELECTRODE SUPPLY VOLTAGE	MAX.	135	VOLTS

TUNING INDICATOR

TARGET VOLTAGE	100	135	VOLTS
TARGET CURRENT ^T	0.9	1.5	MA.
RAY-CONTROL ELECTRODE VOLTAGE ^P	60	81	APPROX. VOLTS
RAY-CONTROL ELECTRODE VOLTAGE ^{PP}	0	0	APPROX. VOLTS

^T WITH 0 VOLTS ON RAY-CONTROL ELECTRODES. SUBJECT TO WIDE VARIATION.

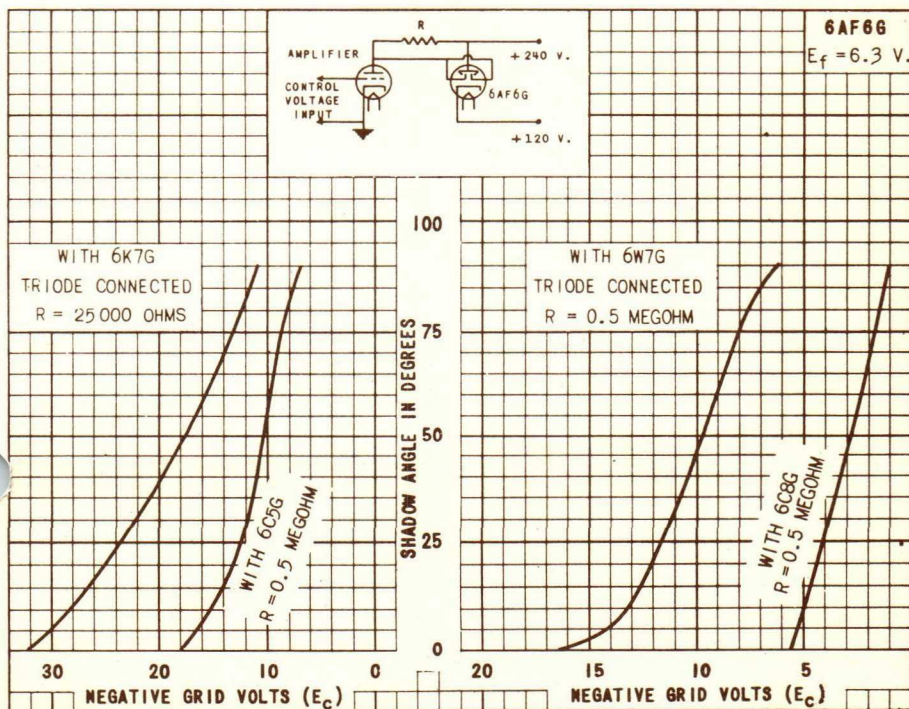
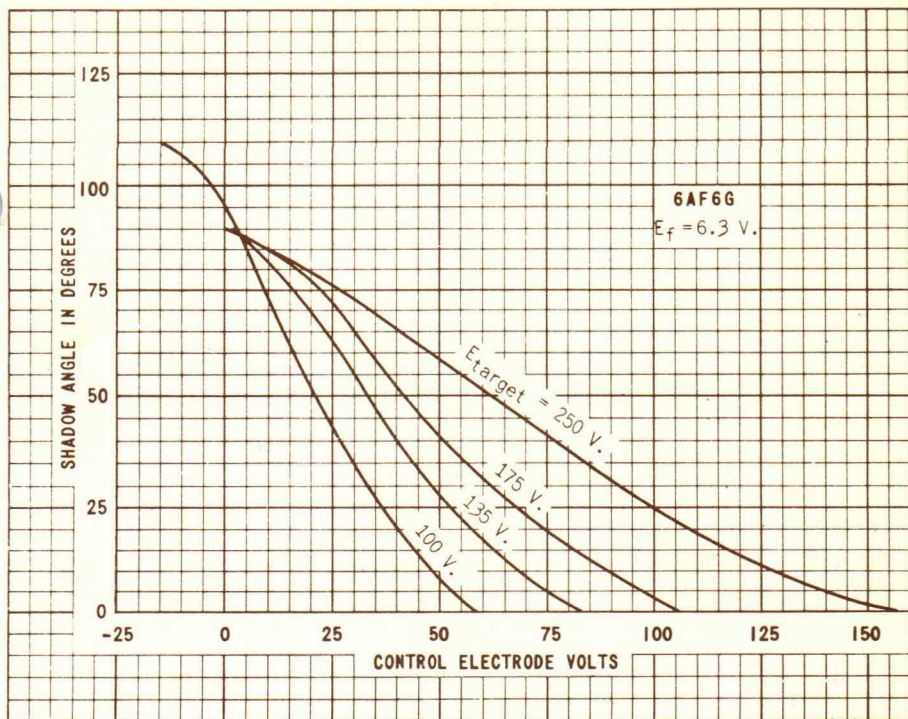
^P FOR 0° SHADOW ANGLE PRODUCED BY EITHER RAY-CONTROL ELECTRODE.

^{PP} FOR 100° SHADOW ANGLE PRODUCED BY EITHER RAY-CONTROL ELECTRODE.

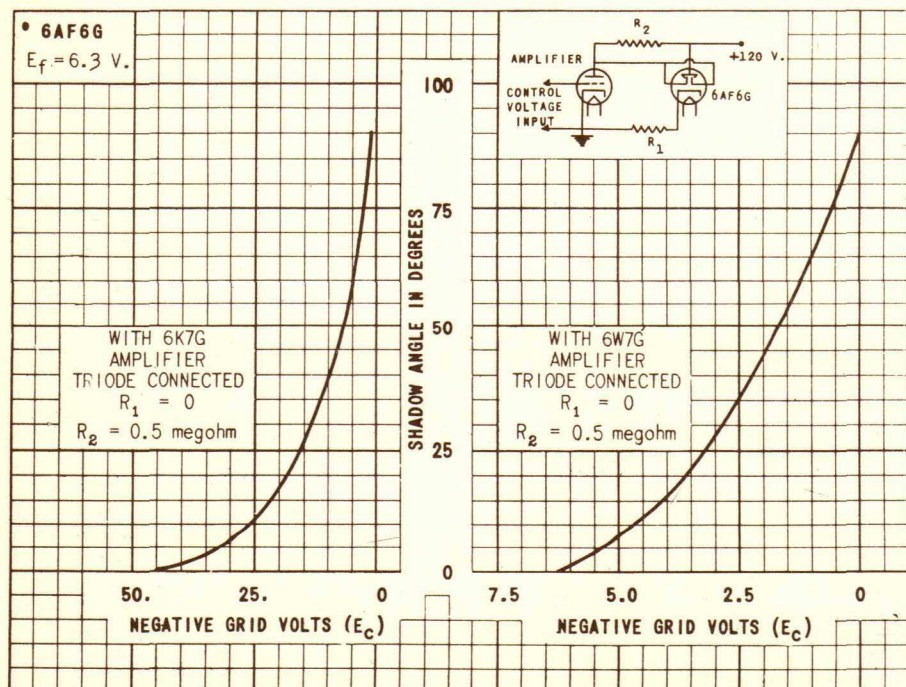
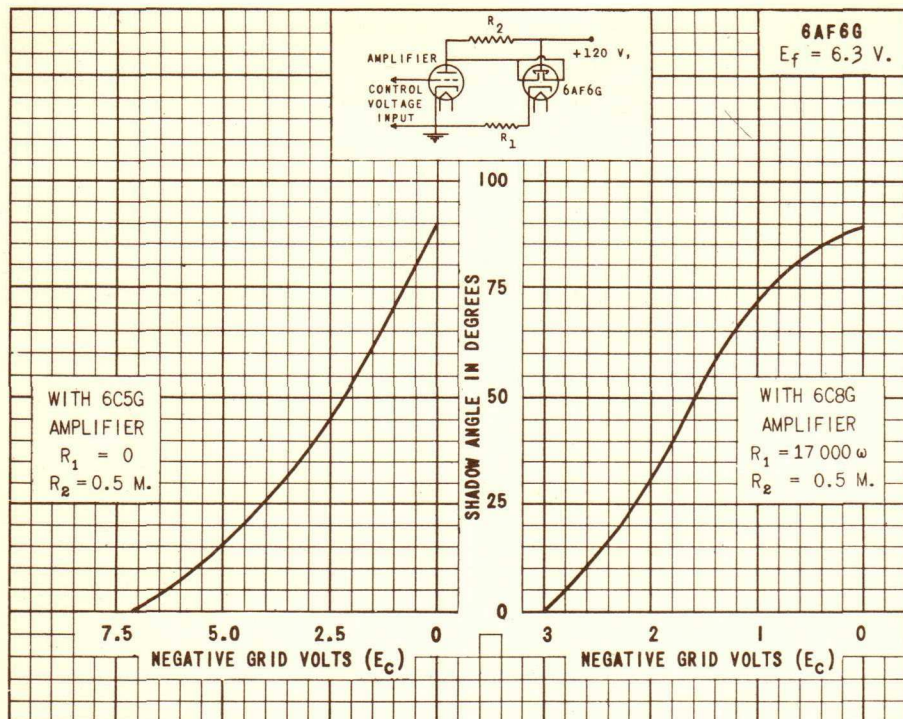
THE PLANE OF THE CONTROL ELECTRODES PASSES THROUGH PINS #3 AND #7.

NOTE: A DOUBLE TRIODE, SUCH AS THE 6C8G OR THE 6F8G, CAN BE USED TO OBTAIN TWO SENSITIVITIES FOR A TUNING INDICATOR BY APPLYING FULL A.V.C. VOLTAGE TO ONE TRIODE AND 1/10 OF THE A.V.C. VOLTAGE TO THE OTHER.

IN AC-DC SUPERHETERODYNE RECEIVERS A SHADOW ANGLE VARIATION OF 0 TO 90° WITH A.V.C. ACTION MAY BE OBTAINED WITHOUT AN AMPLIFIER TUBE BY RAISING THE CATHODE OF THE 6AF6G TO +30 VOLTS, SUPPLYING IF TUBE SCREEN THROUGH A 50 000 OHM RESISTOR AND CONNECTING THE CONTROL ELECTRODES TO THE SCREEN.



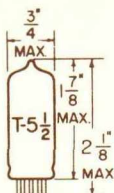
6AF6 G



TUNG-SOL

PENTODE

MINIATURE TYPE



GLASS BULB

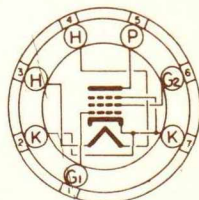
COATED UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 300 MA.

AC OR DC

ANY MOUNTING POSITION


 BOTTOM VIEW
 MINIATURE BUTTON
 7 PIN BASE

780

THE 6AG5 IS A MINIATURE TYPE RF PENTODE HAVING A SHARP CUT-OFF CHARACTERISTIC AND A HIGH VALUE OF TRANSCONDUCTANCE. IN COMPACT, LIGHT-WEIGHT EQUIPMENT IT IS USEFUL AS AN RF AMPLIFIER UP TO ABOUT 400 MEGACYCLES, AND AS A HIGH-FREQUENCY, INTERMEDIATE AMPLIFIER. IT HAS LOW INPUT CAPACITANCE AND LOW OUTPUT CAPACITANCE.

DIRECT INTERELECTRODE CAPACITANCES

PENTODE CONNECTION

GRID #1 TO PLATE: (G_1 TO P) MAX.INPUT: G_1 TO (H+K+ G_2 + G_3 +IS)OUTPUT: P TO (H+K+ G_2 + G_3 +IS)TRIODE CONNECTION (G_2 TIED TO PLATE)GRID TO PLATE: - G TO (P+ G_2)INPUT: - G TO (H+K+ G_3 +IS)OUTPUT: P+ G_2 (H+K+ G_3 +IS)WITH
SHIELD^AWITHOUT
SHIELD

0.02	0.03	$\mu\mu f$
6.6	6.5	$\mu\mu f$
3.1	1.8	$\mu\mu f$
2.5	2.5	$\mu\mu f$
3.6	3.6	$\mu\mu f$
4.3	3	$\mu\mu f$

^A EXTERNAL SHIELD #316 CONNECTED TO PIN #7.

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

	TRIODE CONNECTION ^B	PENTODE CONNECTION	
HEATER VOLTAGE	6.3	6.3	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE	90	90	VOLTS
MAXIMUM PLATE VOLTAGE	300	300	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE	300	300	VOLTS
MAXIMUM GRID #2 VOLTAGE	PLATE	300	VOLTS
MAXIMUM PLATE DISSIPATION	2.5	2	WATTS
MAXIMUM GRID #2 DISSIPATION	---	0.5	WATT
MAXIMUM POSITIVE DC GRID #1 VOLTAGE	0	0	VOLTS

^B TRIODE CONNECTION - GRID #2 CONNECTED TO PLATE.

CONTINUED ON FOLLOWING PAGE

→ INDICATES A CHANGE OR ADDITION.

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER - PENTODE CONNECTION

HEATER VOLTAGE	6.3	6.3	6.3	VOLTS
HEATER CURRENT	300	300	300	MA.
PLATE VOLTAGE	100	125	250	VOLTS
GRID #2 VOLTAGE	100	125	150	VOLTS
CATHODE RESISTOR	180	100	180	OHMS
TRANSCONDUCTANCE	4 500	5 100	5 000	μMHOS
PLATE CURRENT	4.5	7.2	6.5	MA.
GRID #2 CURRENT	1.4	2.1	2	MA.
PLATE RESISTANCE (APPROX.)	0.6	0.5	0.8	MEGOHM
GRID #4 VOLTAGE FOR $I_b = 10 \mu A$. (APPROX.)	-5	-6	-8	VOLTS

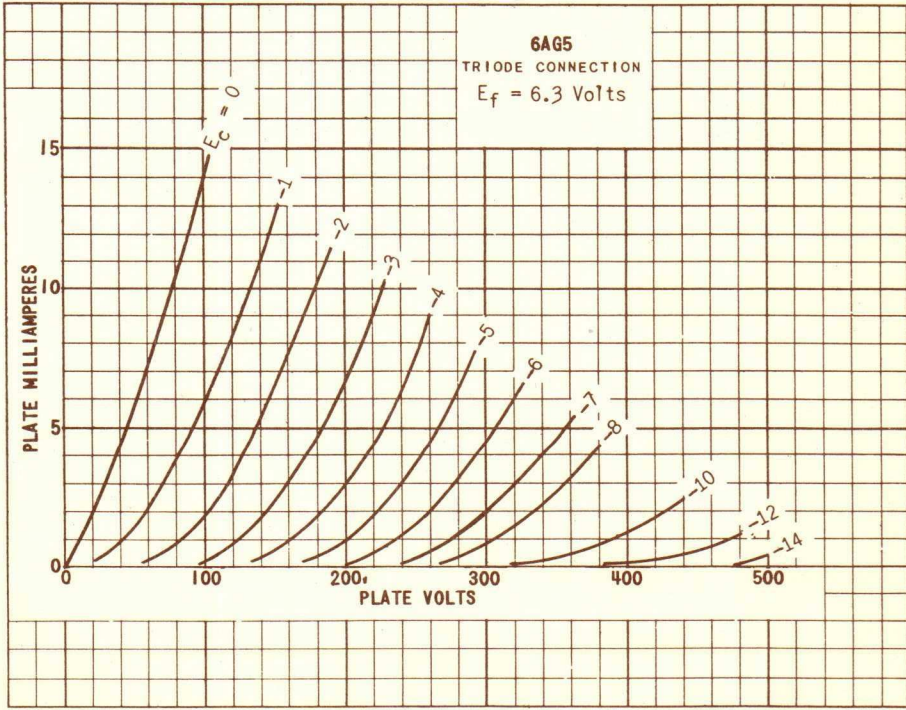
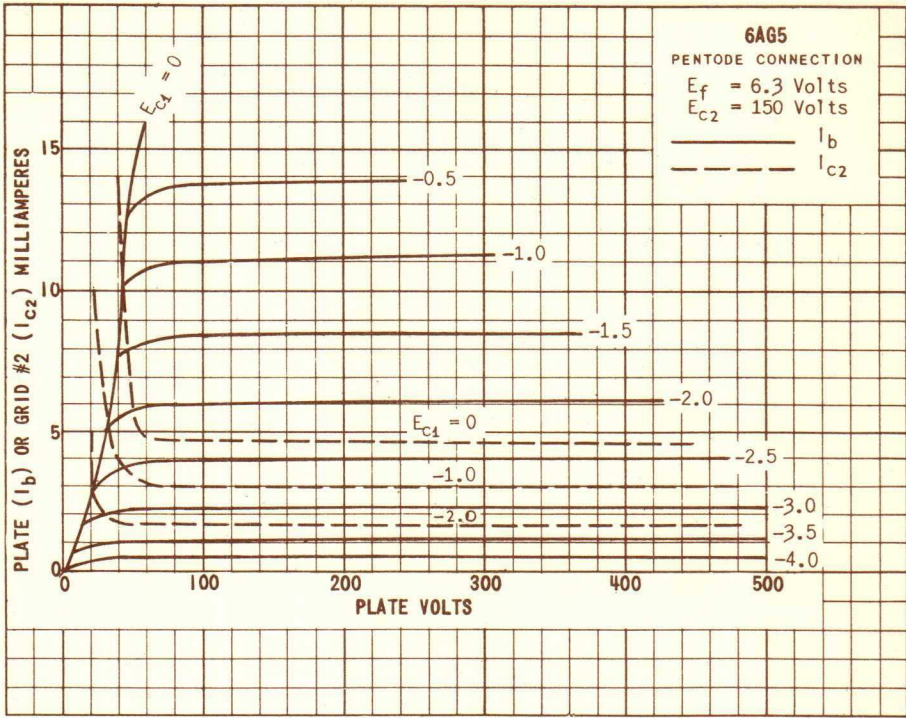
CLASS A₁ AMPLIFIER - TRIODE CONNECTION^C

HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	300	300	MA.
PLATE VOLTAGE	250	180	VOLTS
GRID #2 VOLTAGE	PLATE	PLATE	
CATHODE RESISTOR	820	330	OHMS
TRANSCONDUCTANCE	3 800	5 700	μMHOS
PLATE CURRENT	5.5	7	MA.
PLATE RESISTANCE (APPROX.)	0.01	0.008	MEGOHM
AMPLIFICATION FACTOR	42	45	

^C GRID #2 TIED TO PLATE.

→ INDICATES A CHANGE OR ADDITION.

PLATE
2951
JUNE 1
1952



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PLATE
2952
JUNE 1
1952

