TUNG-SOL

PENTODE POWER AMPLIFIER

COATED UNIPOTENTIAL CATHODE

HEATERS

6F6, 6F6GT/G, 42 – 6.3 V., 0.7 AMPERE
2A5 – 2.5 V., 1.75 AMPERES

TYPES 6F6, 6F6GT/G, 2A5 AND 42 ARE PENTODE AMPLIFIERS DESIGNED FOR APPLICATION IN POWER OUTPUT STAGES OF RECEIVERS. WITH THE EXCEPTION OF HEATER RATINGS, THEIR ELECTRICAL CHARACTERISTICS ARE IDENTICAL.

MAXIMUM RATINGS

	PENTODE CONNECTION	TRIODE CONNECTION	
MAXIMUM PLATE VOLTAGE	375	350	VOLTS
MAXIMUM SCREEN VOLTAGE	285	–	VOLTS
MAXIMUM PLATE DISSIPATION	11	–	WATTS
MAXIMUM SCREEN DISSIPATION	3.75	–	WATTS
MAXIMUM TOTAL PLATE AND SCREEN DISSIPATION	–	10	WATTS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER – SINGLE TUBE [C]

	PENTODE CONNECTION		TRIODE CONNECTION	
PLATE VOLTAGE	250	285	250	VOLTS
SCREEN VOLTAGE	250	285	–	VOLTS
CONTROL GRID VOLTAGE [A]	-16.5	-20	-20	VOLTS
PEAK AF SIGNAL VOLTAGE	16.5	20	20	VOLTS
ZERO-SIGNAL PLATE CURRENT	34	38	31	MA.
ZERO-SIGNAL SCREEN CURRENT	6.5	7	–	MA.
MAXIMUM-SIGNAL PLATE CURRENT	36	40	34	MA.
MAXIMUM-SIGNAL SCREEN CURRENT	10.5	13	–	MA.
PLATE RESISTANCE (APPROX.)	80000	78000	2600	OHMS
TRANSCONDUCTANCE	2500	2550	2600	µMHOS
AMPLIFICATION FACTOR	–	–	6.8	
LOAD RESISTANCE	7000	7000	4000	OHMS
TOTAL HARMONIC DISTORTION	8	9	6.5	PER CENT
POWER OUTPUT	3.2	4.8	0.85	WATTS

PUSH-PULL AMPLIFIER - TWO TUBES [F]

	CLASS A_1 AMPLIFIER [C]	CLASS AB_2 AMPLIFIER [D]		
	PENTODE CONNECTION	PENTODE CONNECTION	TRIODE CONNECTION	
PLATE VOLTAGE	315	375	350	VOLTS
SCREEN VOLTAGE	285	250	–	VOLTS
CONTROL GRID VOLTAGE	-24 [A]	-26	-38	VOLTS
PEAK AF SIGNAL VOLTAGE (GRID TO GRID)	48	82	123	VOLTS
ZERO-SIGNAL PLATE CURRENT	62	34	48	MA.
ZERO-SIGNAL SCREEN CURRENT	12	5	–	MA.
MAXIMUM-SIGNAL PLATE CURRENT	80	82	92	MA.
MAXIMUM-SIGNAL SCREEN CURRENT	19.5	19.5	–	MA.
EFFECTIVE LOAD RESISTANCE (PLATE TO PLATE)	10000	10000	6000	OHMS
TOTAL HARMONIC DISTORTION	4	3.5	2	PER CENT
POWER OUTPUT	11	18.5	13	WATTS

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6F6, 6F6GT/G (2A5, 42)

TUNG-SOL

TYPICAL OPERATING CONDITIONS FOR CATHODE BIAS

	CLASS A_1 AMPLIFIER [C]				CLASS AB_2 AMPLIFIER [D]		
	SINGLE TUBE AMPLIFIER			PUSH-PULL AMPLI.	PUSH-PULL AMPLI.		
	Pentode Conn.		Triode Conn.	Pentode Conn. [F]	Pentode Conn. [F]	Triode Conn. [F]	
Plate	250	285	250	315	375	350	Volts
Screen	250	285	-	285	250	-	Volts
Cathode Resistor	410	-	650	320	340 [B]	730 [E]	Ohms
Peak A-F Grid Voltage	16.5	20	20	-	-	-	Volts
Peak A-F Grid-to-Grid Voltage	-	-	-	58	94	132	Volts
Zero-Sig. Plate Cur.	34	38	31	62	54	50	Ma.
Max.-Sig. Plate Cur.	35	38	32	73	77	60	Ma.
Zero-Sig. Screen Cur.	6.5	7	-	12	8	-	Ma.
Max.-Sig. Screen Cur.	9.7	12	-	18	18	-	Ma.
Load Resistance	7000	7000	4000	-	-	-	Ohms
Effective Load Resis. (plate to plate)	-	-	-	10000	10000	10000	Ohms
Total Harmonic Dist.	8.5	9	6.5	3	5	3	%
Max.-Sig. Power Output	3.1	4.5	0.8	10.5	19	9	Watts

A THE DC RESISTANCE IN THE GRID CIRCUIT, UNDER RATED MAXIMUM CONDITIONS, SHOULD NOT EXCEED 0.5 MEGOHM FOR SELF-BIAS OPERATION AND 0.1 MEGOHM FOR FIXED-BIAS OPERATION.

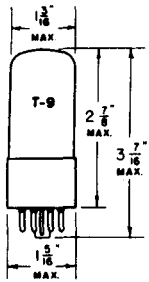
B THE VALUE GIVEN FOR THE CATHODE RESISTOR IS DETERMINED FOR A GRID BIAS OF -21 VOLTS.

C SUBSCRIPT 1 INDICATES THAT GRID CURRENT DOES NOT FLOW DURING ANY PART OF INPUT CYCLE.

D SUBSCRIPT 2 INDICATES THAT GRID CURRENT FLOWS DURING SOME PART OF INPUT CYCLE.

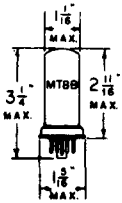
E THE VALUE GIVEN FOR THE CATHODE RESISTOR IS DETERMINED FOR A GRID BIAS OF -36.5 VOLTS.

F UNLESS OTHERWISE SPECIFIED, VALUES ARE FOR 2 TUBES.



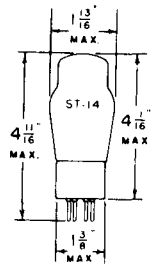
GLASS BULB

6F6GT/G



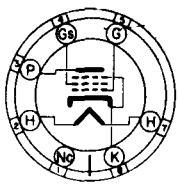
METAL SHELL

6F6

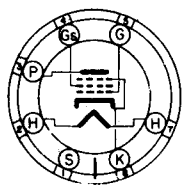


GLASS BULB

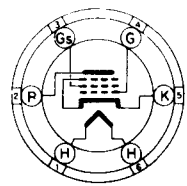
2A5 - 42



MEDIUM 7 PIN OCTAL BASE



7 PIN OCTAL BASE



MEDIUM 6 PIN BASE

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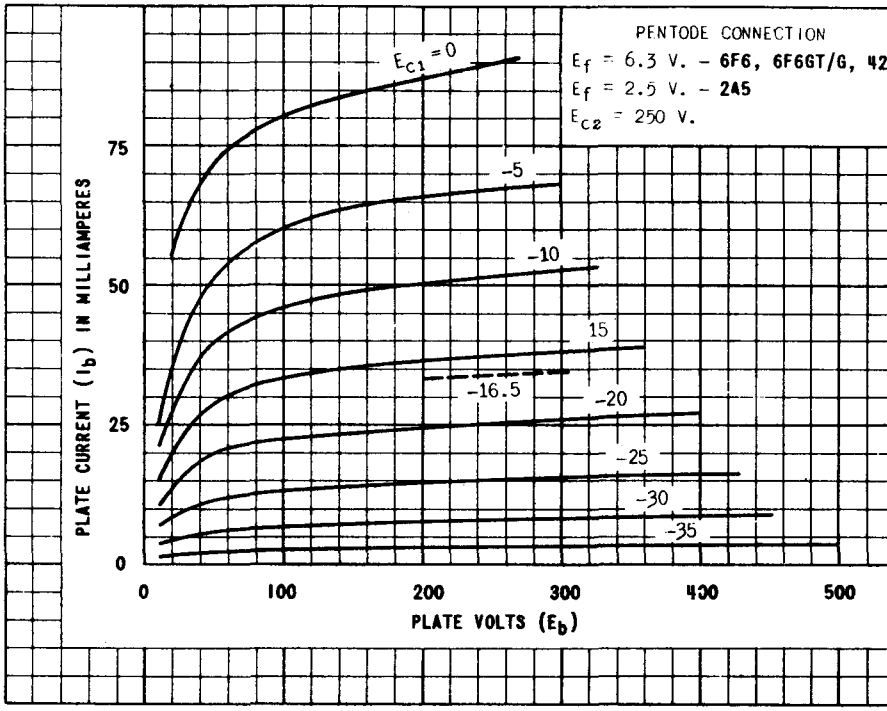

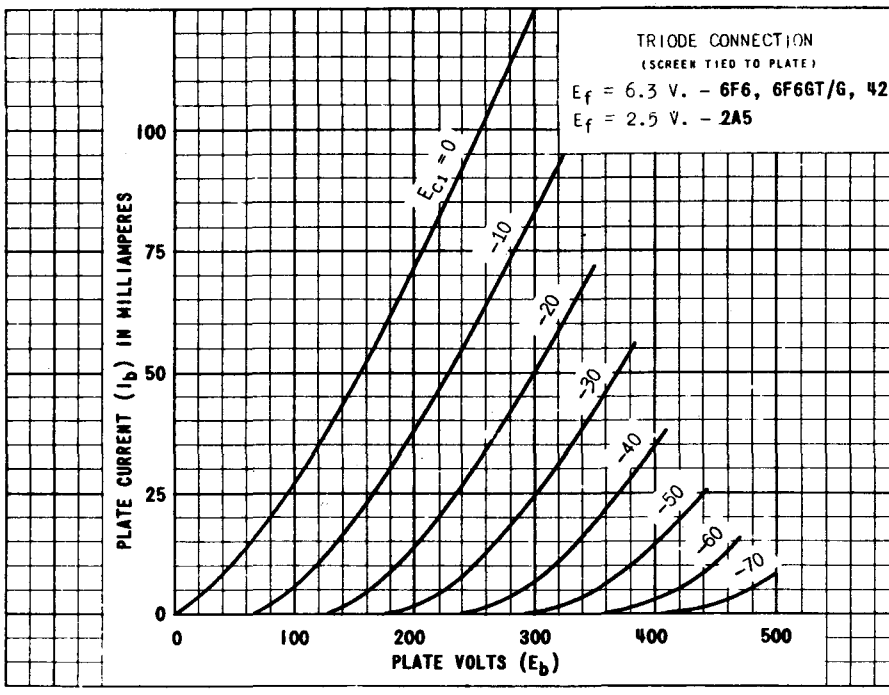

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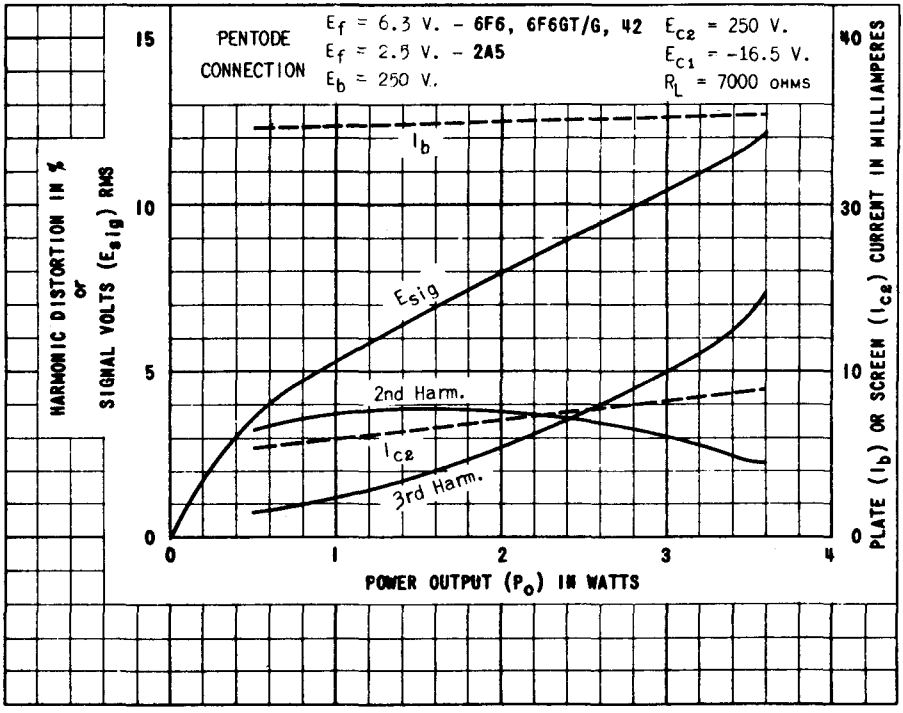
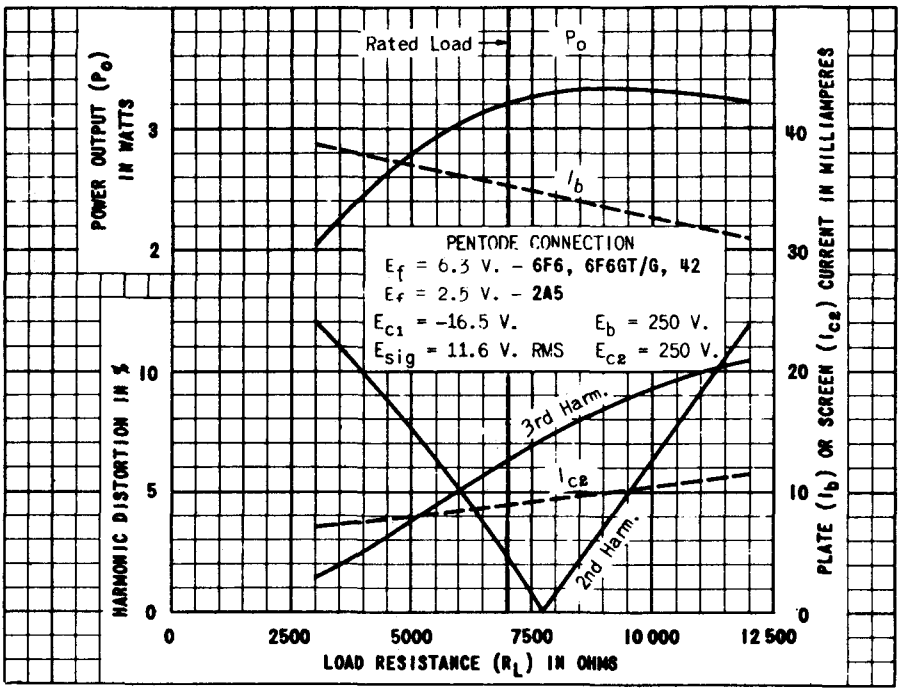
6F6, 6F6GT/G (2A5,42)





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