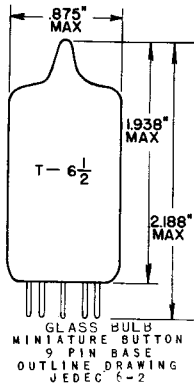
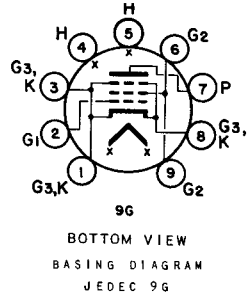


## TUNG-SOL



**PENTODE**  
 MINIATURE TYPE  
 COATED UNIPOTENTIAL CATHODE  
 HEATER  
 6.3 VOLTS 350 MA.  
 AC OR DC  
 ANY MOUNTING POSITION



THE 5686 IS A HEATER-CATHODE TYPE PENTODE POWER AMPLIFIER PARTICULARLY DESIGNED FOR DEPENDABLE OPERATION UNDER CONDITIONS USUALLY FOUND IN MOBILE AND AIRCRAFT APPLICATIONS. IT IS SUITABLE FOR CLASS A AUDIO POWER AMPLIFIER SERVICE OR FOR CLASS C RF POWER AMPLIFIER SERVICE UP TO 160 MC. MULTIPLE LEADS ON THE CATHODE AND SCREEN GRID, FACILITATE RF BYPASSING AT HIGH FREQUENCIES.

**DIRECT INTERELECTRODE CAPACITANCES - APPROX.**

	WITH SHIELD	WITHOUT SHIELD	
GRID #1 TO PLATE (MAX.)	0.08	0.11	pf
INPUT	6.5	6.4	pf
OUTPUT	8.5	4.0	pf

**RATINGS**

**CLASS A<sub>1</sub> AMPLIFIER - DESIGN CENTER VALUES**

MAXIMUM PEAK HEATER CATHODE VOLTAGE	90	VOLTS
MAXIMUM PLATE VOLTAGE	250	VOLTS
MAXIMUM GRID #2 VOLTAGE	250	VOLTS
MAXIMUM PLATE DISSIPATION	7.5	WATTS
MAXIMUM GRID #2 DISSIPATION	3.0	WATTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE (FIXED BIAS)	0.1	MEGOHM
MAXIMUM GRID #1 CIRCUIT RESISTANCE (SELF BIAS)	0.5	MEGOHM

**CLASS C RF AMPLIFIER - DESIGN CENTER VALUES**

MAXIMUM PEAK HEATER CATHODE VOLTAGE	90	VOLTS
MAXIMUM PLATE VOLTAGE	250	VOLTS
MAXIMUM GRID #2 VOLTAGE	250	VOLTS
MAXIMUM GRID #1 VOLTAGE	-150	VOLTS
MAXIMUM PLATE DISSIPATION	7.5	WATTS
MAXIMUM GRID #2 DISSIPATION	3.0	WATTS
MAXIMUM PLATE INPUT POWER	10	WATTS
MAXIMUM PLATE CURRENT	40	MA.
MAXIMUM GRID #2 CURRENT	15	MA.
MAXIMUM GRID #1 CURRENT	3	MA.
MAXIMUM GRID #1 CIRCUIT RESISTANCE	50 000	OHMS

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## TUNG-SOL

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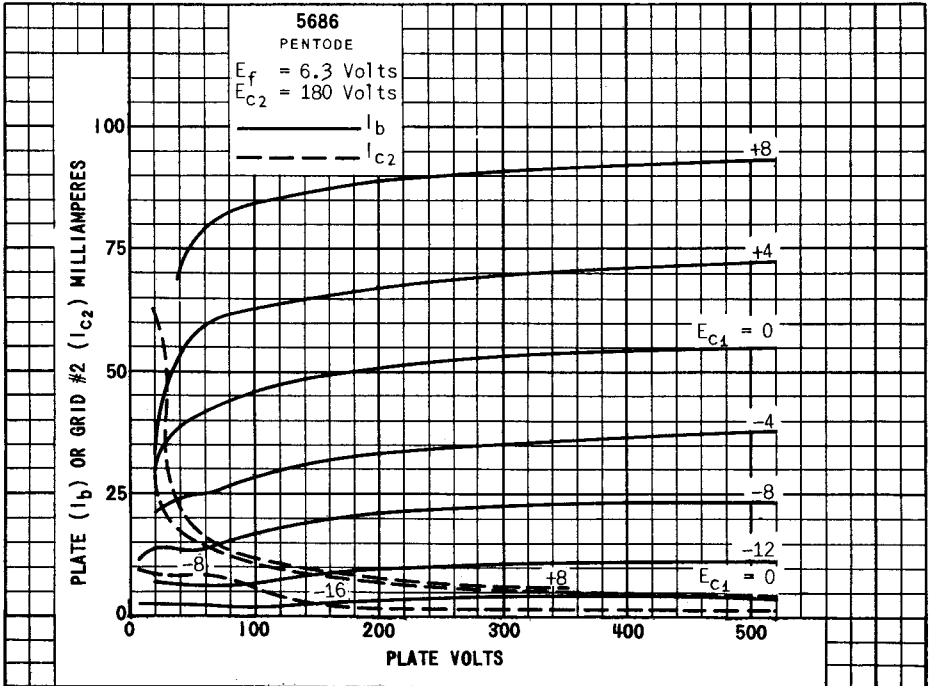
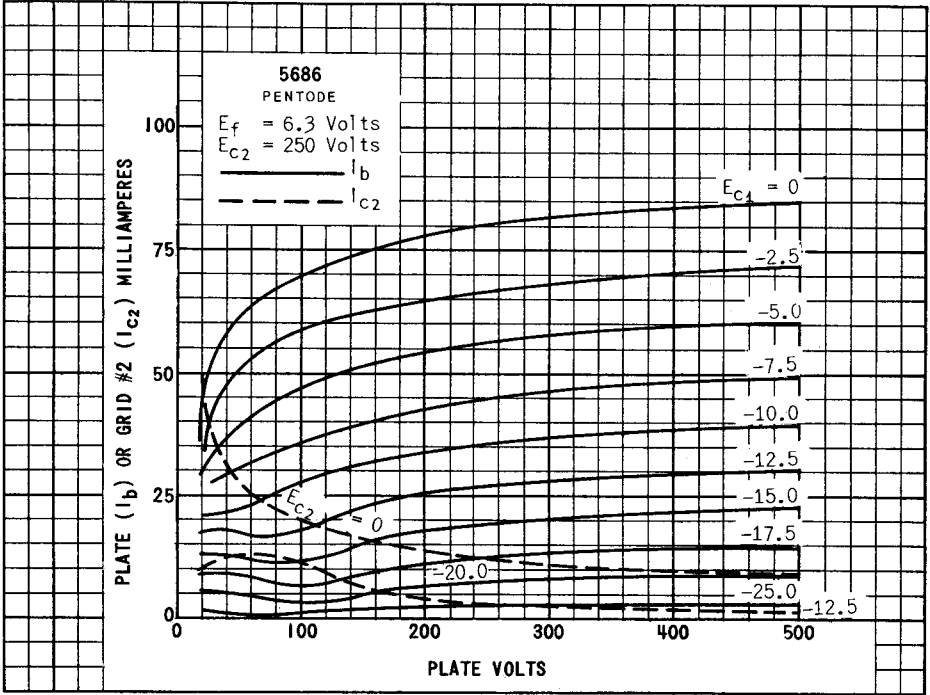
## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A<sub>1</sub> AMPLIFIER

PLATE VOLTAGE	250	VOLTS
GRID #2 VOLTAGE	250	VOLTS
GRID #1 VOLTAGE	-12.5	VOLTS
TRANSCONDUCTANCE	3 100	μMHOS
ZERO-SIGNAL PLATE CURRENT	27	MA.
ZERO-SIGNAL GRID #2 CURRENT	5.0	MA.
LOAD RESISTANCE	9 000	OHMS
POWER OUTPUT	2.7	WATTS

## CLASS C RF AMPLIFIER UP TO 160 MC.

PLATE VOLTAGE	250	250	VOLTS
GRID #2 VOLTAGE	180	250	VOLTS
GRID #1 VOLTAGE	-30	-50	VOLTS
OR GRID #1 RESISTOR	15 000	25 000	OHMS
PEAK RF GRID #1 VOLTAGE	50	75	VOLTS
PLATE CURRENT	30	40	MA.
GRID #2 CURRENT (APPROX.)	6.5	10.5	MA.
GRID #1 CURRENT (APPROX.)	2.0	2.0	MA.
RF GRID DRIVING POWER (APPROX.)	5.0	6.5	MW.
USEFUL POWER OUTPUT AT 125 MC.	—	5.25	WATTS



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