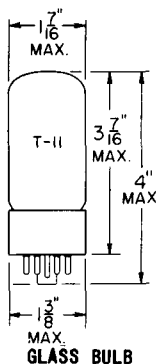


TUNG-SOL

PENTODE



THE MAX. DIAMETER
OF THE T-12 BULB IS
1.9/16"

GLASS BULB

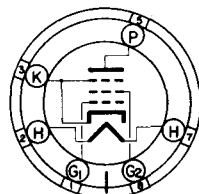
COATED UNIPOTENTIAL CATHODE

HEATER

12.6 VOLTS 0.6 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

SHORT MEDIUM SHELL
6 PIN OCTAL

6CK

THE 12AV5GA IS A BEAM PENTODE USING EITHER A T-11 OR T-12 BULB. IT IS DESIGNED FOR USE AS A HORIZONTAL-DEFLECTION AMPLIFIER IN 600 MA. SERIES HEATER OPERATED TELEVISION RECEIVERS. THERMAL CHARACTERISTICS OF THE HEATER ARE CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED.

DIRECT INTERELECTRODE CAPACITANCES — APPROX.
WITH NO EXTERNAL SHIELD

GRID #1 TO PLATE	0.5	μmf
INPUT	14	μmf
OUTPUT	7.0	μmf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM^A
HORIZONTAL DEFLECTION AMPLIFIER^B

HEATER VOLTAGE	12.6	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:		
HEATER POSITIVE WITH RESPECT TO CATHODE		
TOTAL DC AND PEAK	200	VOLTS
DC	100	VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE		
TOTAL DC AND PEAK	200	VOLTS
MAXIMUM DC PLATE-SUPPLY VOLTAGE (BOOST + POWER SUPPLY)	550	VOLTS
MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE (ABSOLUTE MAX.)	5 500 ^C	VOLTS
MAXIMUM PEAK NEGATIVE PULSE PLATE VOLTAGE	1 250	VOLTS
MAXIMUM GRID #2 VOLTAGE	175	VOLTS
MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE	300	VOLTS
MAXIMUM PLATE DISSIPATION ^D	11	WATTS
MAXIMUM GRID #2 DISSIPATION	2.5	WATTS
MAXIMUM DC CATHODE CURRENT	110	MA.
MAXIMUM PEAK CATHODE CURRENT	400	MA.
MAXIMUM GRID #1 CIRCUIT RESISTANCE	0.47	MEG OHM
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT)	210	°C
HEATER WARM-UP TIME (APPROX.) [*]	11.0	SECONDS

^A UNLESS OTHERWISE SPECIFIED.

^B FOR OPERATION IN A 525-LINE, 30-FRAME TELEVISION SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE CONCERNING TELEVISION BROADCAST STATIONS," FEDERAL COMMUNICATIONS COMMISSION. THE DUTY CYCLE OF THE VOLTAGE PULSE MUST NOT EXCEED 15 PERCENT OF ONE SCANNING CYCLE.

^C THIS VALUE MUST NOT BE EXCEEDED.

^D IN STAGES OPERATING WITH GRID LEAK BIAS, AN ADEQUATE CATHODE-BIAS RESISTOR OR OTHER SUITABLE MEANS IS REQUIRED TO PROTECT THE TUBE IN THE ABSENCE OF EXCITATION.

^{*} HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATION RESISTANCE.

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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

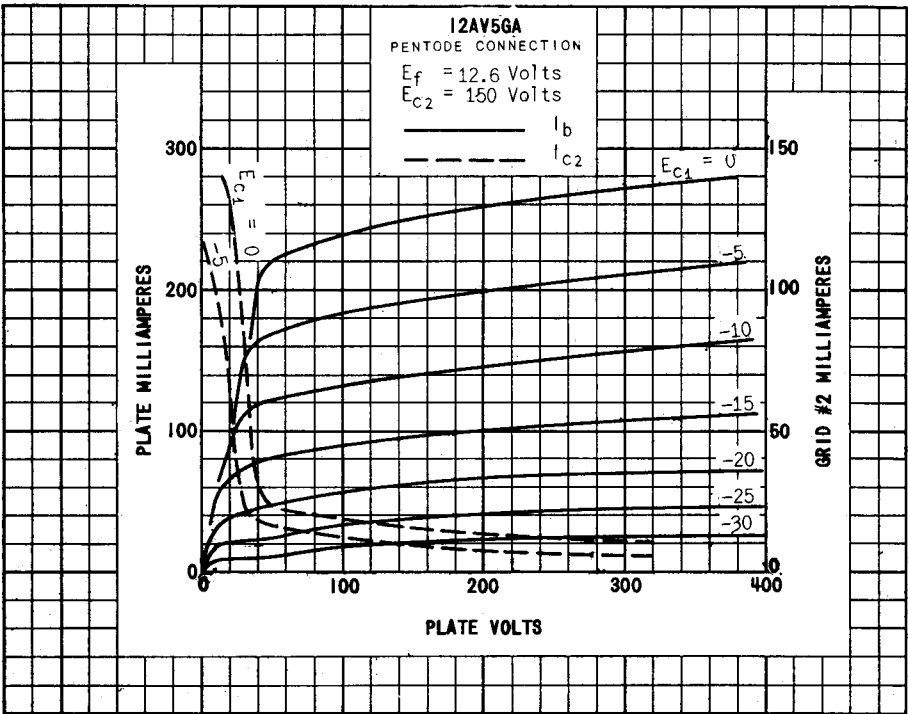
HEATER VOLTAGE		12.6		VOLTS
HEATER CURRENT		0.6		AMP.
PLATE VOLTAGE	60		250	VOLTS
GRID #2 VOLTAGE	150		150	VOLTS
GRID #1 VOLTAGE	0 ^E		-22.5	VOLTS
PLATE RESISTANCE (APPROX.)	---	14 500	←	OHMS
TRANSCONDUCTANCE	---	5 900	←	μMHOS
PLATE CURRENT	260	←	57	← MA.
GRID #2 CURRENT	26	←	2.1	← MA.
GRID #1 VOLTAGE (APPROX.)				
FOR $I_b = 1.0$ MA.			-43	← VOLTS
TRIODE AMPLIFICATION FACTOR ^F	---		4.3	

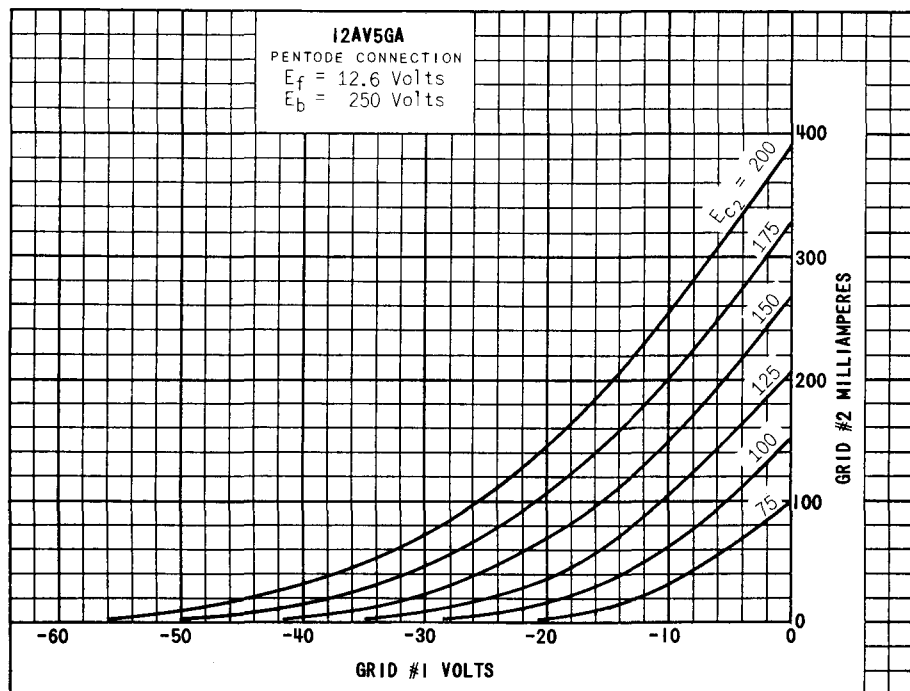
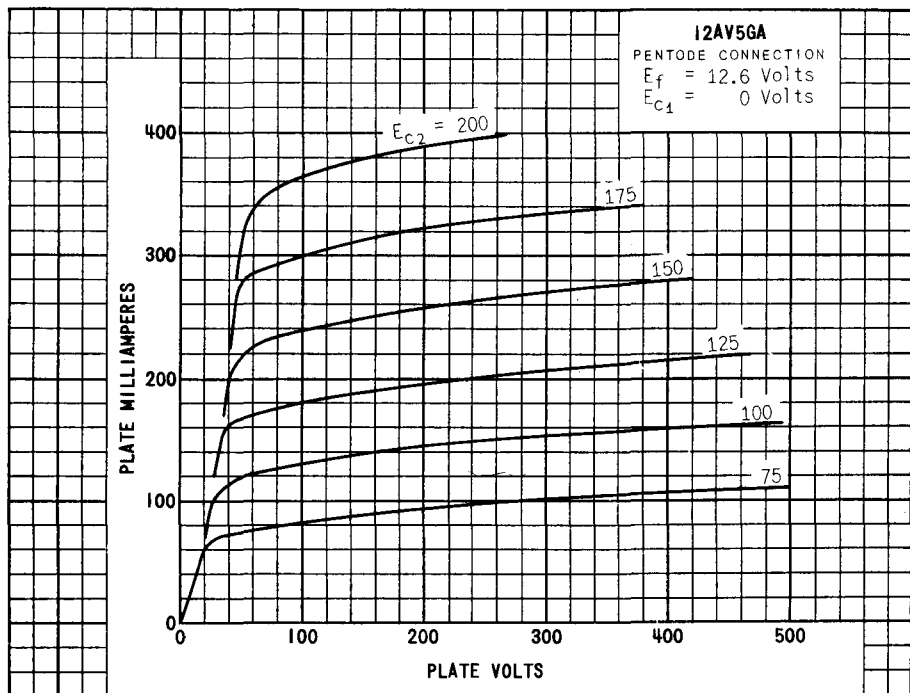
^E APPLIED FOR VERY SHORT INTERVAL SO AS NOT TO DAMAGE TUBE.

^F TRIODE CONNECTION (SCREEN TIED TO PLATE) WITH $E_b = E_{c2} = 150$ VOLTS AND $E_{c1} = -22.5$ VOLTS

SIMILAR TYPE REFERENCE: Except for heater characteristics, the 12AV5GA is identical to the 6AV5GA, 17AV5GA & the 25AV5GA.

→ INDICATES A CHANGE.





12AV5GA

