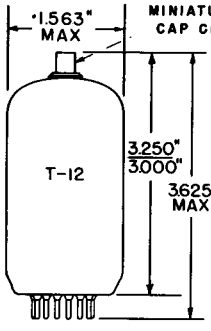
TUNG-SOL

BEAM PENTODE



GLASS BULB
BUTTON
12 PIN BASE E12-74
OUTLINE DRAWING
JEDEC 12-79

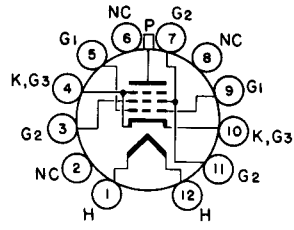
FOR

TV HORIZONTAL DEFLECTION

AMPLIFIER APPLICATIONS

ANY MOUNTING POSITION

COATED UNIPOTENTIAL CATHODE



BOTTOM VIEW

BASING DIAGRAM
JEDEC 12DR

THE 17GV5 IS A COMPACTRON BEAM-POWER PENTODE EMPLOYING A 12 PIN T-12 ENVELOPE. IT IS DESIGNED PRIMARILY FOR USE AS THE HORIZONTAL-DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES - APPROX.

WITHOUT EXTERNAL SHIELD

GRID 1 TO PLATE: (G1 TO P)	0.6	pf
INPUT: G1 TO (H+K+G2+B.P)	16	pf
OUTPUT: P TO (H+K+G2+B.P.)	7.0	pf

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	16.8 VOLTS	450	MA.
HEATER WARM-UP TIME [A]		11	SECONDS
HEATER SUPPLY LIMITS:			
CURRENT OPERATION		450±30	MA.
MAXIMUM HEATER CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE			
TOTAL DC AND PEAK		200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE			
DC		100	VOLTS
TOTAL DC AND PEAK		200	VOLTS

CONTINUED ON FOLLOWING PAGE

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MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

HORIZONTAL-DEFLECTION AMPLIFIER SERVICE

DC PLATE-SUPPLY VOLTAGE (BOOST + DC POWER SUPPLY)	770	VOLTS
PEAK POSITIVE PULSE PLATE VOLTAGE	6500	VOLTS
PEAK NEGATIVE PULSE PLATE VOLTAGE	1500	VOLTS
GRID 2 VOLTAGE	220	VOLTS
NEGATIVE DC GRID 1 VOLTAGE	55	VOLTS
PEAK NEGATIVE GRID 1 VOLTAGE	330	VOLTS
PLATE DISSIPATION[B]	17.5	WATTS
GRID 2 DISSIPATION	3.5	WATTS
DC CATHODE CURRENT	175	MA.
PEAK CATHODE CURRENT	550	MA.
GRID 1 CIRCUIT RESISTANCE	1.0	MEGOHMS
BULB TEMPERATURE AT HOTTEST POINT	220	C

TYPICAL OPERATING CHARACTERISTICS

AVERAGE CHARACTERISTICS

PLATE VOLTAGE	5000	60	250	VOLTS
GRID 2 VOLTAGE	150	150	150	VOLTS
GRID 1 VOLTAGE	----	0[C]	-22.5	VOLTS
PLATE RESISTANCE, APPROX.	----	----	18000	OHMS
TRANSCONDUCTANCE	----	----	7300	μMHOS
PLATE CURRENT	----	345	65	MA.
GRID 2 CURRENT	----	27 ←	1.8	MA.
GRID 1 VOLTAGE, APPROX. Ib=1.0 MA.	-100	----	-42	VOLTS
TRIODE AMPLIFICATION FACTOR[D]	----	----	4.4	

A

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 THREE TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

B

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.

C

APPLIED FOR SHORT INTERVAL (TWO SECONDS MAXIMUM) SO AS NOT TO DAMAGE TUBE.

D

TRIODE CONNECTION (SCREEN TIED TO PLATE) WITH Eb=Ec2=150 VOLTS AND Ec1=-22.5 VOLTS

→ INDICATES A CHANGE.