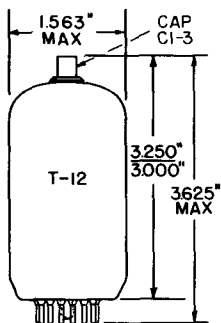


TUNG-SOL

PENTODE
COMPACTRON

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

BEAM PENTODE

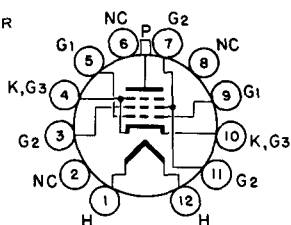
FOR

HORIZONTAL-DEFLECTION AMPLIFIER

APPLICATIONS IN T.V. RECEIVERS

COATED UNIPOTENTIAL CATHODE

ANY MOUNTING POSITION



BOTTOM VIEW
BASING DIAGRAM
JEDEC 12 DR

THE 21GY5 IS A BEAM-POWER PENTODE IN THE 12 PIN COMPACTRON CONSTRUCTION. IT IS DESIGNED SPECIFICALLY FOR USE AS THE HORIZONTAL-DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES
WITHOUT EXTERNAL SHIELD

GRID 1 TO PLATE: (G1 TO P)	0.7	pf
INPUT: G1 TO (H + K + G2 + G3)	22	pf
OUTPUT: P TO (H + K + G2 + BP)	9.0	pf

HEATER CHARACTERISTICS AND RATINGS
DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	21 VOLTS	450	MA
HEATER WARM-UP TIME		111	SECONDS
LIMITS OF APPLIED CURRENT		450 ± 30	MA
HEATER-CATHODE VOLTAGE			
HEATER POSITIVE WITH RESPECT TO CATHODE			
DC COMPONENT		100	VOLTS
TOTAL DC AND PEAK		200	VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE			
TOTAL DC AND PEAK		200	VOLTS

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

MAXIMUM RATINGS

HORIZONTAL-DEFLECTION AMPLIFIER SERVICE
DESIGN MAXIMUM RATINGS - SEE EIA STANDARD RS-239

DC PLATE-SUPPLY VOLTAGE (BOOST + DC POWER SUPPLY)	770	VOLTS
PEAK POSITIVE PULSE PLATE VOLTAGE	6,500	VOLTS
PEAK NEGATIVE PULSE PLATE VOLTAGE	1,500	VOLTS
GRID 2 VOLTAGE	220	VOLTS
NEGATIVE DC GRID 1 VOLTAGE	55	VOLTS
PEAK NEGATIVE GRID 1 VOLTAGE	330	VOLTS
PLATE DISSIPATION ^A	18	WATTS
GRID2 DISSIPATION	3.5	WATTS
DC CATHODE CURRENT	230	MA
PEAK CATHODE CURRENT	800	MA
GRID 1 CIRCUIT RESISTANCE	1.0	MEGOHMS
BULB TEMPERATURE AT HOTTEST POINT	220	°C

A- 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.

CHARACTERISTICS

PLATE VOLTAGE	5,000	60	130	VOLTS
GRID 2 VOLTAGE	130	130	130	VOLTS
GRID 1 VOLTAGE	-	0 ^B	-20	VOLTS
PLATE CURRENT	-	410	50	MA
GRID 2 CURRENT	-	24	1.75	MA
PLATE RESISTANCE	-	-(APPROX.)	11,000	OHMS
TRANSCONDUCTANCE	-	-	9,100	MICROMHOS
GRID 1 VOLTAGE FOR $I_b = 1.0$ MA (APPROX.)	-66	-	-33	VOLTS
TRIODE AMPLICATION FACTOR ^C	-	-	4.7	

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

C- TRIODE CONNECTION (SCREEN TIED TO PLATE) WITH $E_b = E_{c2} = 130$ VOLTS AND $E_{c1} = -20$ VOLTS