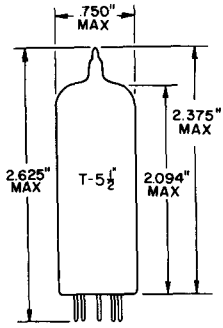
TUNG-SOL

BEAM PENTODE

MINIATURE TYPE

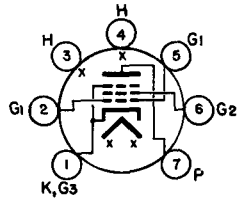


GLASS BULB
SMALL BUTTON MINIATURE
7 PIN BASE E7-1
OUTLINE DRAWING
JEDEC 5-3

UNIPOTENTIAL CATHODE

AUDIO OUTPUT AMPLIFIER
FOR SERIES STRING OPERATION

ANY MOUNTING POSITION



BOTTOM VIEW
BASING DIAGRAM
JEDEC 7CV

THE 34GD5A IS A BEAM POWER PENTODE IN THE 7 PIN MINIATURE CONSTRUCTION. IT IS INTENDED FOR USE AS AN AUDIO OUTPUT AMPLIFIER IN AC/DC RADIO RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE	0.6	pf
GRID #1 TO CATHODE & GRID #3, #2 & HEATER	12	pf
PLATE TO CATHODE & GRID #3, #2, & HEATER	9	pf

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	34 VOLTS	100	MA.
HEATER SUPPLY LIMITS:			
CURRENT OPERATION		100±6	MA.
MAXIMUM PEAK HEATER-CATHODE VOLTAGE			
HEATER NEGATIVE WITH RESPECT TO CATHODE		200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE		200[A]	VOLTS
HEATER WARM-UP TIME, (APPROX.)[B]		20	SECONDS

[A] THE DC COMPONENT MUST NOT EXCEED 100 VOLTS.

[B] 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 OPERATING RESISTANCE.

CONTINUED ON FOLLOWING PAGE

CONTINUED FROM PRECEDING PAGE

MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

CLASS A_1 AMPLIFIER

PLATE VOLTAGE	150	VOLTS
GRID #2 VOLTAGE	130	VOLTS
PLATE DISSIPATION	5	WATTS
GRID #2 INPUT	1.1	WATTS
GRID #1 (CONTROL GRID) VOLTAGE:		
NEGATIVE BIAS VALUE	50	VOLTS
POSITIVE BIAS VALUE	0	VOLTS
BULB TEMPERATURE (AT HOTTEST POINT ON BULB SURFACE)	250	°C

MAXIMUM CIRCUIT VALUES

GRID #1 CIRCUIT RESISTANCE:		
FOR FIXED-BIAS OPERATION	0.1	MEGOHM
FOR CATHODE-BIAS OPERATION	0.5	MEGOHM

TYPICAL OPERATING CHARACTERISTICS

CLASS A_1 AMPLIFIER

PLATE VOLTAGE	110	VOLTS
GRID #2 VOLTAGE	110	VOLTS
GRID #1 VOLTAGE	-7.5	VOLTS
PEAK AF GRID #1 VOLTAGE	7.5	VOLTS
ZERO-SIGNAL PLATE CURRENT	35	MA.
ZERO-SIGNAL GRID #2 CURRENT	3	MA.
PLATE RESISTANCE (APPROX.)	13,000	OHMS
TRANSCONDUCTANCE	5700	μMHOS
LOAD RESISTANCE	2500	OHMS
TOTAL HARMONIC DISTORTION (APPROX.)	10	PERCENT
MAX.-SIGNAL POWER OUTPUT	1.4	WATTS