TUNG-SOL
PENTODE

COATED UNIPOENTIAL CATHODE
HEATER
25.0 VOLTS 0.3 AMP.
AC OR DC
ANY MOUNTING POSITION

BOTTOM VIEW
SHORT MEDIUM SHELL
6 PIN OCTAL
60K

GLASS BULB
THE MAX. DIAMETER
OF THE T-12 BULB IS
1 9/16"*

THE 25AV5GA IS A BEAM PENTODE DESIGNED FOR USE AS A HORIZONTAL-DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS. IT USES EITHER A T-11 OR T-12 BULB.

DIRECT INTERELECTRODE CAPACITANCES — APPROX.
WITH NO EXTERNAL SHIELD
GRID #1 TO PLATE
INPUT
OUTPUT
0.5 μμf
14 μμf
7.0 μμf

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

HEATER VOLTAGE
MAXIMUM HEATER-CATHODE VOLTAGE:
HEATER POSITIVE WITH RESPECT TO CATHODE
TOTAL DC AND PEAK
DC
HEATER NEGATIVE WITH RESPECT TO CATHODE
TOTAL DC AND PEAK
MAXIMUM DC PLATE-SUPPLY VOLTAGE (BOOST + POWER SUPPLY)
MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE (ABSOLUTE MAX.)
MAXIMUM PEAK NEGATIVE PULSE PLATE VOLTAGE
MAXIMUM GRID #2 VOLTAGE
MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE
MAXIMUM PLATE DISSIPATION D
MAXIMUM GRID #2 DISSIPATION
MAXIMUM DC CATHODE CURRENT
MAXIMUM PEAK CATHODE CURRENT
MAXIMUM GRID #1 CIRCUIT RESISTANCE
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT)
HEATER WARM-UP TIME (APPROX.) *

25.0 VOLTS
200 VOLTS
100 VOLTS
200 VOLTS
550 VOLTS
500C VOLTS
1 290 VOLTS
175 VOLTS
300 VOLTS
11 WATTS
2.5 WATTS
110 MA.
400 MA.
0.47 MEGOHM
210 °C
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.

CONTINUED ON FOLLOWING PAGE
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HEATER VOLTAGE 25.0 VOLTS
HEATER CURRENT 0.3 AMP.
PLATE VOLTAGE 60 250 VOLTS
GRID #2 VOLTAGE 150 150 VOLTS
GRID #1 VOLTAGE 0 22.5 VOLTS
PLATE RESISTANCE (APPROX.) --- 14 500 OHMS
TRANSCONDUCTANCE --- 5 900 uMHO
PLATE CURRENT 260 57 MA.
GRID #2 CURRENT 26 2.1 MA.
GRID #1 VOLTAGE (APPROX.) --- --- VOLTS
FOR I_B = 1.0 MA.
TRIODE AMPLIFICATION FACTOR^F --- 4.3

^EAPPLIED FOR VERY SHORT INTERVAL SO AS NOT TO DAMAGE TUBE.
^FTRIODE CONNECTION (SCREEN TIED TO PLATE) WITH E_b = E_C2 = 3.50 VOLTS AND E_C1 = 22.5 VOLTS

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

→ INDICATES A CHANGE.
25AV5GA
PENTODE CONNECTION
\( E_f = 25.0 \text{ Volts} \)
\( E_{CL} = 0 \text{ Volts} \)

25AV5GA
PENTODE CONNECTION
\( E_f = 25.0 \text{ Volts} \)
\( E_b = 250 \text{ Volts} \)
25AV5GA (6AV5GA)

25AV5GA
PENTODE CONNECTION

$E_f = 25.0 \text{ Volts}$

$E_b = 250 \text{ Volts}$

GRID #1 VOLTS

PLATE MILLIAMPERES

$E_c = 200$

$E_c = 175$

$E_c = 150$

$E_c = 125$

$E_c = 100$

$E_c = 75$