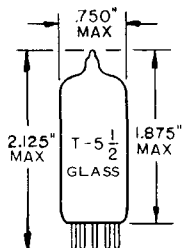


**TUNG-SOL****TRIODE****MINIATURE TYPES**

FOR  
UHF TELEVISION SERVICE

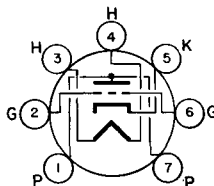
2AF4  
OUTLINE  
JEDEC 5-2



BASE 7 PIN BUTTON  
JEDEC E7-1

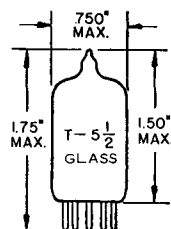
COATED UNIPOTENTIAL CATHODE  
ANY MOUNTING POSITION

BASING DIAGRAM  
JEDEC 7DK



BOTTOM VIEW

2AF4A  
OUTLINE  
JEDEC 5-1



BASE 7 PIN BUTTON  
JEDEC E7-1

THE 2AF4 AND 2AF4A ARE MEDIUM MU TRIODES IN THE 7 PIN MINIATURE CONSTRUCTION. THEY ARE DESIGNED FOR LOCAL OSCILLATOR SERVICE IN TELEVISION RECEIVERS WHICH OPERATE IN THE UHF REGION. INTERNAL LEAD INDUCTANCE IS REDUCED BY EMPLOYING DOUBLE CONNECTIONS TO THE PLATE AND GRID. ELECTRICALLY, THE 2AF4 IS IDENTICAL TO THE 2AF4A AND DIFFERS IN ENVELOPE SIZE.

**DIRECT INTERELECTRODE CAPACITANCES**

WITH EXTERNAL SHIELD #316 CONNECTED TO CATHODE EXCEPT AS NOTED

|                                    |     |    |
|------------------------------------|-----|----|
| GRID TO PLATE                      | 1.9 | pf |
| GRID TO CATHODE AND HEATER         | 2.2 | pf |
| PLATE TO CATHODE AND HEATER        | 1.4 | pf |
| HEATER TO CATHODE - SEE NOTE BELOW | 2.2 | pf |

NOTE: WITH EXTERNAL SHIELD #316 CONNECTED TO PLATE

**HEATER CHARACTERISTICS AND RATINGS**

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

|                                         |            |          |         |
|-----------------------------------------|------------|----------|---------|
| AVERAGE CHARACTERISTICS                 | 2.35 VOLTS | 600      | mA      |
| HEATER WARM-UP TIME                     |            | 11       | SECONDS |
| LIMITS OF SUPPLIED CURRENT              |            | 600 ± 40 | mA      |
| PEAK HEATER-CATHODE VOLTAGE:            |            |          |         |
| HEATER NEGATIVE WITH RESPECT TO CATHODE |            | 50       | VOLTS   |
| HEATER POSITIVE WITH RESPECT TO CATHODE |            | 50       | VOLTS   |
| DC COMPONENT                            |            | 25       | VOLTS   |

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

UHF OSCILLATOR

|                       |     |       |
|-----------------------|-----|-------|
| PLATE VOLTAGE         | 150 | VOLTS |
| NEGATIVE GRID VOLTAGE | 50  | VOLTS |
| PLATE DISSIPATION     | 2.5 | WATTS |
| GRID CURRENT          | 2   | mA    |
| CATHODE CURRENT       | 24  | mA    |

CHARACTERISTICS

CLASS A<sub>1</sub> AMPLIFIER

|                      |               |       |
|----------------------|---------------|-------|
| PLATE VOLTAGE        | 80            | VOLTS |
| CATHODE RESISTOR     | 150           | OHMS  |
| PLATE CURRENT        | 17.5          | mA    |
| TRANSCONDUCTANCE     | 6,500         | μMHOS |
| AMPLIFICATION FACTOR | 13.5          |       |
| PLATE RESISTANCE     | APPROX. 2,100 | OHMS  |

TYPICAL OPERATION

AT FREQUENCY OF 1,000 MC/S

|                |             |       |
|----------------|-------------|-------|
| PLATE VOLTAGE  | 100         | VOLTS |
| PLATE RESISTOR | 220         | OHMS  |
| GRID RESISTOR  | 10,000      | OHMS  |
| PLATE CURRENT  | 17          | mA    |
| GRID CURRENT   | APPROX. 750 | μA    |

