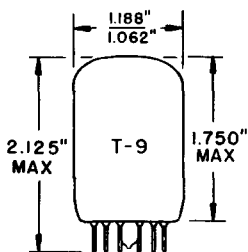


## TUNG-SOL

## DUAL TRIODE

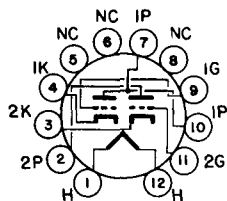
MINIATURE TYPE



GLASS BULB  
BUTTON 12 PIN  
BASE E12-70  
OUTLINE DRAWING

TWO DISSIMILAR TRIODES  
FOR  
SYNC CLIPPER AND  
AGC AMPLIFIER  
SERVICE IN  
TV RECEIVERS

COATED UNIPOTENTIAL CATHODES  
ANY MOUNTING POSITION



BASING DIAGRAM  
JEDEC 12 FR

THE 4HC7 CONTAINS TWO DISSIMILAR TRIODES IN A T-9 COMPACTRON CONSTRUCTION. EACH ELEMENT IS BROUGHT OUT TO A SEPARATE BASE PIN. TRIODE #1 HAS A LOW MU AND TRIODE #2 HAS A HIGH MU. THE 4HC7 IS DESIGNED FOR SYNC CLIPPER AND GATED AGC AMPLIFIER SERVICE IN TV RECEIVERS. THE HEATER IS INTENDED TO BE OPERATED IN A SERIES STRING. EXCEPT FOR HEATER RATINGS, THE 4HC7 IS IDENTICAL TO THE 5HC7

### DIRECT INTERELECTRODE CAPACITANCES WITHOUT EXTERNAL SHIELD

|                        | TRIODE 1 | TRIODE 2 |    |
|------------------------|----------|----------|----|
| GRID TO PLATE (g to p) | 1.9      | 2.2      | pf |
| INPUT: g to (h + k)    | 2.0      | 1.9      | pf |
| OUTPUT: p to (h + k)   | 0.7      | 0.56     | pf |

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

|                                         |           |          |       |
|-----------------------------------------|-----------|----------|-------|
| AVERAGE CHARACTERISTICS                 | 4.2 VOLTS | 600      | MA.   |
| HEATER WARM-UP TIME                     |           | 11       | SECS. |
| LIMITS OF SUPPLIED CURRENT              |           | 600 ± 40 | 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

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

|                                 | TRIODE 1 | TRIODE 2 |         |
|---------------------------------|----------|----------|---------|
| PLATE VOLTAGE                   | 330      | 330      | VOLTS   |
| NEGATIVE DC GRID VOLTAGE        | 100      | 100      | VOLTS   |
| POSITIVE DC GRID VOLTAGE        | 0        | 0        | VOLTS   |
| POSITIVE TRANSIENT GRID VOLTAGE | 60       | -        | VOLTS   |
| PLATE DISSIPATION               | 3        | 1.2      | WATTS   |
| GRID CIRCUIT RESISTANCE         | 5.0      | 5.0      | MEGOHMS |

CHARACTERISTICS

|                                               |       |        |            |
|-----------------------------------------------|-------|--------|------------|
| PLATE VOLTAGE                                 | 150   | 150    | VOLTS      |
| GRID VOLTAGE                                  | -1    | -1     | VOLTS      |
| PLATE CURRENT                                 | 18    | 1.0    | MA         |
| TRANSCONDUCTANCE                              | 4400  | 1900   | $\mu$ MHOS |
| AMPLIFICATION FACTOR                          | 23    | 100    |            |
| PLATE RESISTANCE ( APPROX. )                  | 5,200 | 53,000 | OHMS       |
| GRID VOLTAGE FOR $i_b = 10 \mu A$ ( APPROX. ) | -13   | -2.2   | VOLTS      |