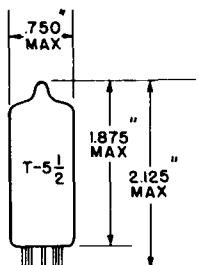


TUNG-SOL

POWER AMPLIFIER PENTODE

MINIATURE TYPE

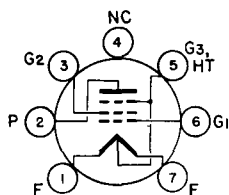


GLASS BULB
MINIATURE BUTTON
7 PIN BASE E7-1
OUTLINE DRAWING
JEDEC 5-2

COATED FILAMENT

FOR USE IN THE OUTPUT STAGE OF
AC/DC PORTABLE RECEIVERS

ANY MOUNTING POSITION



BOTTOM VIEW
BASING DIAGRAM
JEDEC 6BX

THE 3V4 IS A POWER AMPLIFIER PENTODE UTILIZING THE MINIATURE CONSTRUCTION. IT IS DESIGNED FOR USE IN THE OUTPUT STAGE OF AC/DC BATTERY PORTABLE RECEIVERS. IT IS IDENTICAL TO THE 3Q4 EXCEPT FOR THE DIFFERENT BASING ARRANGEMENT.

FILAMENT CHARACTERISTICS AND RATINGS*

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS

SERIES ^A	2.8 VOLTS	50	MA.
PARALLEL ^B	1.4 VOLTS	100	MA.

FILAMENT SUPPLY LIMITS:

VOLTAGE OPERATION:

	SERIES ^A	PARALLEL ^B
1.5 VOLT DRY CELL SUPPLY	2.2 TO 3.2	1.1 TO 1.6 VOLTS
OTHER BATTERY SUPPLIES OR POWER LINE	2.2 TO 3.0	1.1 TO 1.5 VOLTS

→ MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

	SERIES ^A	PARALLEL ^B	
PLATE VOLTAGE	100	100	VOLTS
GRID #2 VOLTAGE	100	100	VOLTS
CATHODE CURRENT	12.0 ^C	12.0	MA.

CONTINUED ON FOLLOWING PAGE

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TYPICAL OPERATING CHARACTERISTICS

CLASS A₁ AMPLIFIER

	SERIES	PARALLEL		
FILAMENT VOLTAGE	2.8	1.4	1.4	VOLTS
PLATE VOLTAGE	90	85	90	VOLTS
GRID #2 VOLTAGE	90	85	90	VOLTS
GRID #1 VOLTAGE	-4.5	-5	-4.5	VOLTS
PEAK GRID #1 SIGNAL VOLTAGE	4.5	5	4.5	VOLTS
PLATE CURRENT (AT ZERO SIGNAL)	7.7	6.9	9.5	MA.
GRID #2 CURRENT (AT ZERO SIGNAL)	1.7	1.5	2.1	MA.
PLATE RESISTANCE (APPROX.)	0.12	0.12	0.1	MEGOHMS
TRANSCONDUCTANCE	2,000	1,975	2,150	μMHOS
LOAD RESISTANCE	10,000	10,000	10,000	OHMS
TOTAL HARMONIC DISTORTION	7	10	7	PERCENT
MAXIMUM SIGNAL POWER OUTPUT	240	250	270	MW

^A FILAMENT VOLTAGE APPLIED ACROSS THE TWO SECTIONS IN SERIES BETWEEN PIN #1 & #7. GRID #1 VOLTAGE IS REFERRED TO PIN #1.

^B FILAMENT VOLTAGE APPLIED ACROSS THE TWO SECTIONS IN PARALLEL, BETWEEN PIN #5 & PINS #1 & #7 TIED TOGETHER. GRID #1 VOLTAGE REFERRED TO PIN #5.

^C THE MAXIMUM ALLOWABLE CATHODE CURRENT FOR EACH 1.4 VOLT FILAMENT SECTION IS 6 MA. FOR SERIES OPERATION OF THE SECTIONS, A SHUNTING RESISTOR MUST BE CONNECTED ACROSS THE SECTION BETWEEN PINS #1 & #5 TO BYPASS CATHODE CURRENT IN EXCESS OF 6 MA. WHEN OTHER TUBES IN A SERIES FILAMENT ARRANGEMENT CONTRIBUTE TO THE FILAMENT CURRENT OF THE 3V4, AN ADDITIONAL SHUNTING RESISTOR MAY BE REQUIRED BETWEEN PINS #1 & #7.

* INDICATES AN ADDITION.

→ INDICATES A CHANGE.

