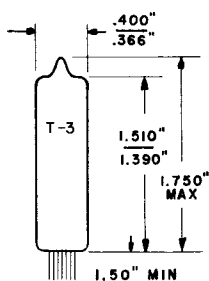


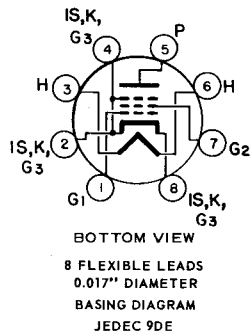
TUNG-SOL

PENTODE
SUBMINIATURE TYPE

GLASS BULB

SUBMINIATURE
8 PIN BASE E8-10
OUTLINE DRAWING
JEDEC 3-3

BEAM PENTODE
FOR
AUDIO POWER AMPLIFIER SERVICE
COATED UNIPOTENTIAL CATHODE
ANY MOUNTING POSITION



THE 5902WA IS A HEATER-CATHODE TYPE BEAM PENTODE OF SUBMINIATURE CONSTRUCTION SUITABLE FOR SERVICE WHERE SEVERE CONDITIONS OF MECHANICAL SHOCK OR VIBRATION ARE ENCOUNTERED. IT IS DESIGNED FOR AUDIO POWER AMPLIFIER SERVICE IN EQUIPMENTS WITH LOW PLATE SUPPLY VOLTAGES, AND IS CAPABLE OF APPROXIMATELY ONE WATT OUTPUT IN THE AUDIO RANGE.

HEATER CHARACTERISTICS AND RATINGS

ABSOLUTE MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	6.3	VOLTS	450	MA.
LIMITS OF APPLIED VOLTAGE			6.0 TO 6.6	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE			±200	VOLTS

MAXIMUM RATINGS

ABSOLUTE MAXIMUM VALUES - SEE EIA STANDARD RS-239

DC PLATE VOLTAGE	250	VOLTS
PEAK PLATE VOLTAGE	360	VOLTS
NEGATIVE GRID 1 VOLTAGE	55	VOLTS
GRID 2 VOLTAGE	155	VOLTS
PLATE DISSIPATION	3.7	WATTS
GRID 2 DISSIPATION	0.4	WATTS
DC CATHODE CURRENT	50	MA
GRID 1 CIRCUIT RESISTANCE	155	MEGOHMS
ENVELOPE TEMPERATURE AT HOTTEST POINT	220°	C

CONTINUED ON FOLLOWING PAGE

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SPECIAL TESTS AND RATINGS

INTERELECTRODE INSULATION		
VIBRATION		
SHOCK		
FATIGUE		
ALTITUDE RATING	80,000	FEET

CHARACTERISTICS

PLATE VOLTAGE	110	VOLTS
GRID 2 VOLTAGE	110	VOLTS
CATHODE BIAS RESISTOR	270	OHMS
PLATE CURRENT	30	MA.
GRID 2 CURRENT	2.2	MA
TRANSCONDUCTANCE	4,200	μ MHOS
PLATE RESISTANCE	15	K OHMS
GRID 1 VOLTAGE FOR $I_b = 10 \mu A$	-40	VOLTS

TYPICAL OPERATING CONDITIONS

CLASS A1 POWER AMPLIFIER

PLATE SUPPLY VOLTAGE	110	VOLTS
GRID 2 VOLTAGE	110	VOLTS
CATHODE BIAS RESISTOR - BYPASSED	270	OHMS
GRID 1 SIGNAL VOLTAGE	6.4	VOLTS RMS
LOAD RESISTANCE	3,000	OHMS
PLATE CURRENT	APPROX. 29	MA.
GRID 2 CURRENT	APPROX. 5.5	MA.
TOTAL HARMONIC DISTORTION	10	PERCENT
SIGNAL POWER OUTPUT	1.0	WATT

