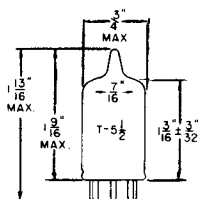


TUNG-SOL

DETECTOR AMPLIFIER PENTODE

MIDGET TYPE

COATED UNIPOTENTIAL CATHODE

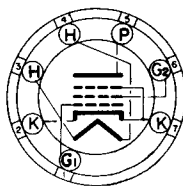


HEATER^A
 6.3 VOLTS 0.15 AMPERE
 AC OR DC

GLASS BULB

MINIATURE BUTTON 7 PIN BASE

MOUNTING POSITION - ANY



BOTTOM VIEW

THE 9001 IS A SHARP CUT-OFF MIDGET TYPE PENTODE INTENDED FOR USE AS A DETECTOR AND AMPLIFIER AT ULTRA HIGH FREQUENCIES. ITS CONSTRUCTION, INCLUDING DOUBLE CATHODE LEADS, PERMITS CIRCUITS TO BE DESIGNED WITH EXTREMELY SHORT LEADS AND WITH MINIMUM INTER-CIRCUIT COUPLING. ELECTRICALLY ITS CHARACTERISTICS ARE IDENTICAL WITH TYPE 954.

RATINGS^A

MAXIMUM PLATE VOLTAGE	250	VOLTS
MAXIMUM SCREEN VOLTAGE	100	VOLTS
MINIMUM GRID VOLTAGE	-3	VOLTS
PLATE DISSIPATION	0.5	WATT
SCREEN DISSIPATION	0.1	WATT

*INTERPRETED ACCORDING TO RMA STANDARD MB-210

DIRECT INTERELECTRODE CAPACITANCES

MAXIMUM GRID TO PLATE (WITH EXTERNAL SHIELD)	0.01	$\mu\mu\text{f}$
INPUT (WITH NO EXTERNAL SHIELD)	3.6	$\mu\mu\text{f}$
OUTPUT (WITH NO EXTERNAL SHIELD)	3.0	$\mu\mu\text{f}$

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER

PLATE VOLTAGE	90	250	VOLTS
SCREEN VOLTAGE	90	100	VOLTS
GRID VOLTAGE	-3	-3	VOLTS
PLATE RESISTANCE (APPROX.)	1.0	GREATER THAN 1.0	MEG OHM
TRANSCONDUCTANCE	1100	1400	μMHOS
PLATE CURRENT	1.2	2.0	MA.
SCREEN CURRENT	0.5	0.7	MA.

CONTINUED NEXT PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

MIXER IN SUPERHETERODYNE CIRCUIT

PLATE VOLTAGE	250	VOLTS
SCREEN VOLTAGE	100	VOLTS
GRID VOLTAGE (APPROX.) ^B	-5	VOLTS
CONVERSION TRANSCONDUCTANCE (APPROX.)	550	μMHOS

^A WHEN THE CATHODE IS NOT CONNECTED DIRECTLY TO THE HEATER THE POTENTIAL DIFFERENCE BETWEEN HEATER AND CATHODE SHOULD BE KEPT AS LOW AS POSSIBLE.

^B VALUES INDICATED ARE OPTIMUM. FOR AN OSCILLATOR PEAK VOLTAGE OF 4 VOLTS, THE GRID BIAS IS MINIMUM.

TO PROVIDE THE SHORTEST POSSIBLE CIRCUIT RETURNS AND TO PREVENT INTER-STAGE COUPLING AT ULTRA HIGH FREQUENCIES, EACH RF AMPLIFIER STAGE MAY REQUIRE RF BY-PASSING AND SHIELDING. THIS CAN BE ACCOMPLISHED BY PLACING SMALL CONDENSERS CLOSE TO THE TUBE TERMINALS. IN ADDITION RF CHOKES MAY BE REQUIRED IN THE SUPPLY OF RETURN LEADS OF THE TUBE ELEMENTS.

THIS TUBE HAS TWO CATHODE LEADS. IF THE GRID RETURN IS CONNECTED TO ONE CATHODE TERMINAL AND THE PLATE AND SCREEN RETURNS ARE CONNECTED TO THE OTHER CATHODE TERMINAL, THE PLATE AND SCREEN RF CIRCUITS WILL BE COMPLETED WITH A MINIMUM OF INDUCTANCE IN COMMON WITH THE GRID CIRCUIT.

PLATE
1404
MARCH 15
1944