

ELECTRON TUBE, TRAVELING WAVE PULSED AMPLIFIER

HUGGINS LABORATORIES, INC.

TYPE 8258

DESCRIPTION: 2 WATT, BEAM PULSED, PERIODIC PERMANENT MAGNET FOCUSED, TRAVELING WAVE (FORWARD WAVE), TUBE AMPLIFIER FOR OPERATING FROM 2320 TO 2680 MEGACYCLES.

ELEMENT OR TEST	LIMITS		UNITS
	MIN.	MAX.	
HEATER VOLTAGE	6.86	7.14	V _{RMS}
HEATER CURRENT	--	1.2	AMP _B
CATHODE CURRENT	--	40.0	MA _{DC}
HELIX VOLTAGE	900	1000	V _{DC}
HELIX CURRENT	--	10.0	MA _{DC}
ANODE VOLTAGE	50	300	V _{DC}
ANODE CURRENT	--	0.1	MA _{DC}
COLLECTOR VOLTAGE *	900	1000	V _{DC}
COLLECTOR CURRENT	--	40.0	MA _{DC}
GRID VOLTAGE	50	125	V _{DC}
GRID CURRENT	--	15.0	MA _{DC}
GRID VOLTAGE (CUT-OFF)	--	-20	V _{DC}
ALL VOLTAGES ARE REFERENCED TO THE CATHODE. ALL CURRENTS ARE SPECIFIED AT PEAK VALUES.			
<u>R.F. SPECIFICATIONS</u>			
POWER OUTPUT (PEAK)	33	--	DBM
SMALL SIGNAL GAIN	30	--	DB
SATURATED GAIN	30	--	DB
OUTPUT SIGNAL ATTENUATION (CUT-OFF)	70	--	DB
V.S.W.R. (INPUT/OUTPUT)	--	2:1	--
NOISE FIGURE	--	30	DB
INPUT R.F. POWER	--	1	WATT
CATHODE PRE-HEATING	60	--	SEC
DUTY CYCLE	--	0.1	--

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE (OPERATING) - 0°C TO +50°C
 RELATIVE HUMIDITY (OPERATING) - UP TO 80%, DUE TO CONDENSATION AND TO TEMPERATURE CHANGE
 BAROMETRIC PRESSURE (OPERATING) - FROM 28 TO 20.4 INCHES OF MERCURY, (0 TO 10,000 FEET)
 TEMPERATURE (STORAGE) - -35°C TO +70°C
 RELATIVE HUMIDITY (NON-OPR.) - SAME AS FOR OPERATING CONDITION.
 BAROMETRIC PRESSURE (NON-OPR.) - FROM 28 TO 7.0 INCHES OF MERCURY, (0 TO 35,000 FEET)
 SHOCK (NON-OPR.) - FORCE OF 10G, WITH A TIME DURATION OF 11 ±1 MILLISECONDS.
 VIBRATION (NON-OPR.) - 2G, 10 TO 500 CPS. 0.40 INCHES DA, 5 TO 10 CPS.

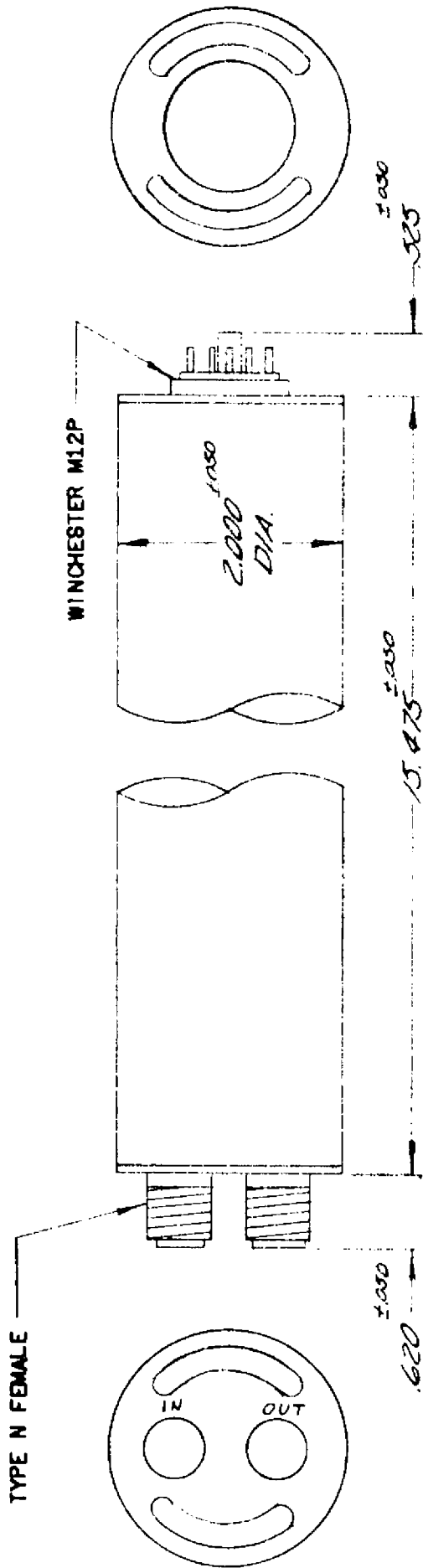
MECHANICAL DATA, GENERAL

PHYSICAL DIMENSIONS - SEE FIGURE 1
 MOUNTING POSITION - ANY
 COOLING - NOT REQUIRED
 INPUT/OUTPUT IMPEDANCE (RF) - 50 OHMS
 R.F. CONNECTORS - TYPE N FEMALE
 WEIGHT (APPROX.) - 6 POUNDS

- * THE COLLECTOR IS CONNECTED INTERNALLY TO THE TUBE CAPSULE AND MUST BE GROUNDED FOR SAFE OPERATION.

FIGURE 1

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POWER CONNECTIONS

- PIN B - GRID
- D - CAPSULE COLLECTOR GROUND
- F - HEATER CATHODE
- H - HEATER
- J - CATHODE
- L - HELIX
- N - ANODE

MATERIALS AND FINISHES

- CAPSULE --- BRUSH CHROME PLATED STEEL
- END CAPS -- BLACK ANODIZED ALUMINUM

MARKING

- ANODE VOLTAGE, HELIX VOLTAGE, PEAK GRID VOLTAGE, AND CATHODE CURRENT PERMANENTLY MARKED ON THE TUBE CAPSULE.
- IN AND OUT ARE PERMANENTLY MARKED ON THE R.F. END CAP.
- MANUFACTURERS NAME, TRADEMARK OR CODE SYMBOL, AND PART NUMBER.