RADIO MANUFACTURERS ASSOCIATION
ENGINEERING DEPARTMENT

Release No. 462

January 5, 1946

sponsor:
General Electric Co.

RMA TYPE 5J32 Magnetron (External Magnet Required)

GENERAL CHARACTERISTICS

Electrical

Filament - Tungsten	
Filament Voltage *	2.1 Volts
Filament Current maximum	40 Amperes
Frequency	90 to 450 Megacycles
Field Strength	1500 Gauss

Mechanical

Dimensions (See outline K-8639335)

Type of Cooling	Liquid and Forced-air
Anode, liquid cooling	1 Quart Per Minute
Maximum Outlet Temperature	70 C

Seals

Forced-air cooling shall be provided so that the maximum seal temperature shall not exceed 150 C.

Mounting Position - Any

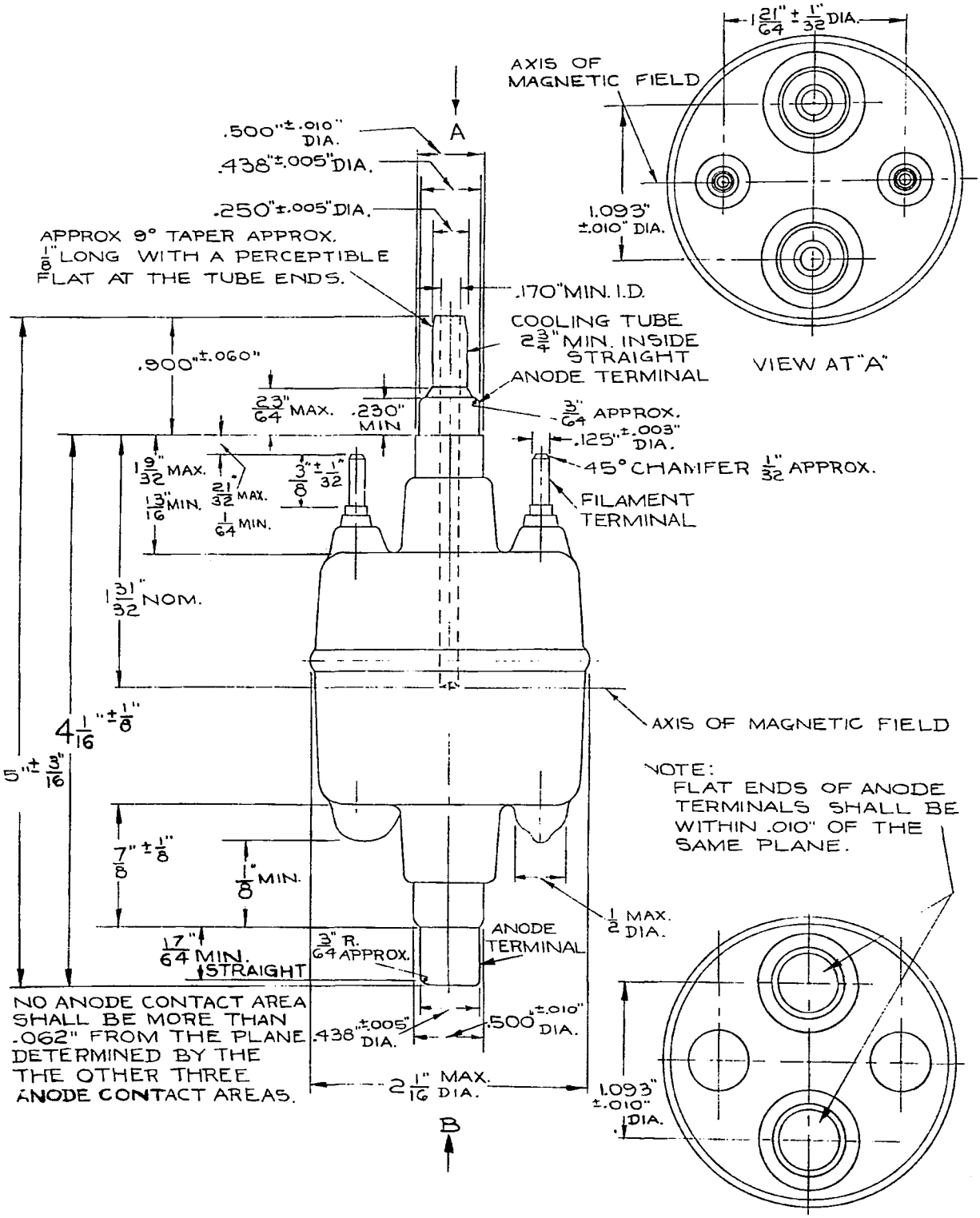
MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

	Typical Operation			Maximum Ratings	
D-C Plate Voltage ≠	1400	1600	2100	2500	Volts
Plate Dissipation				400	Watts
Plate Input	500	500	500	600	Watts
D-C Plate Current	350	310	240	450	Milliamperes
Conversion Efficiency, approximate	20	40	25		Per Cent
Power Output	100	200	125		Watts
Frequency	90	300	450		Megacycles
Duty	CW	CW	CW		CW

* The filament supply should provide 0 to 2.5 volts, continuously variable, at 40 amperes. In operation Ef should be adjusted to the lowest value consistent with optimum operation, then maintained accurately. During starting If should never exceed 60 amperes.

≠ The plate supply should have sufficiently poor regulation or series resistance to permit stable operation and prevent excessive plate dissipation. The tube should be operated with optimum loading at all times. Either overloading or insufficient loading may result in undesirable operation or damage to the tube due to excessive radio-frequency voltage across the seals.

TYPE 5J32


1 21/64" ± 1/32" DIA.
AXIS OF MAGNETIC FIELD
.500" ± .010" DIA.
A
.438" ± .005" DIA.
.250" ± .005" DIA.
1.093" ± .010" DIA.
APPROX 9° TAPER APPROX. 1/8" LONG WITH A PERCEPTIBLE FLAT AT THE TUBE ENDS.
.170" MIN. I.D.
COOLING TUBE 2 3/4" MIN. INSIDE STRAIGHT
VIEW AT "A"
.900" ± .060"
ANODE TERMINAL
23/64" MAX.
.230" MIN
3/64" APPROX.
.125" ± .003" DIA.
45° CHAMFER 1/32" APPROX.
1 9/32" MAX.
21/32" MAX.
3/8" ± 1/32"
1 3/16" MIN.
1/64" MIN.
FILAMENT TERMINAL
1 31/32" NOM.
AXIS OF MAGNETIC FIELD
4 1/16" ± 1/8"
5" ± 3/16"
NOTE:
FLAT ENDS OF ANODE TERMINALS SHALL BE WITHIN .010" OF THE SAME PLANE.
7/8" ± 1/8"
1/8" MIN.
1/2" MAX. DIA.
17/64" MIN. STRAIGHT
3/64" R. APPROX.
ANODE TERMINAL
NO ANODE CONTACT AREA SHALL BE MORE THAN .062" FROM THE PLANE DETERMINED BY THE THE OTHER THREE ANODE CONTACT AREAS.
.438" ± .005" DIA.
.500" ± .010" DIA.
2 1/16" MAX. DIA.
1.093" ± .010" DIA.
B