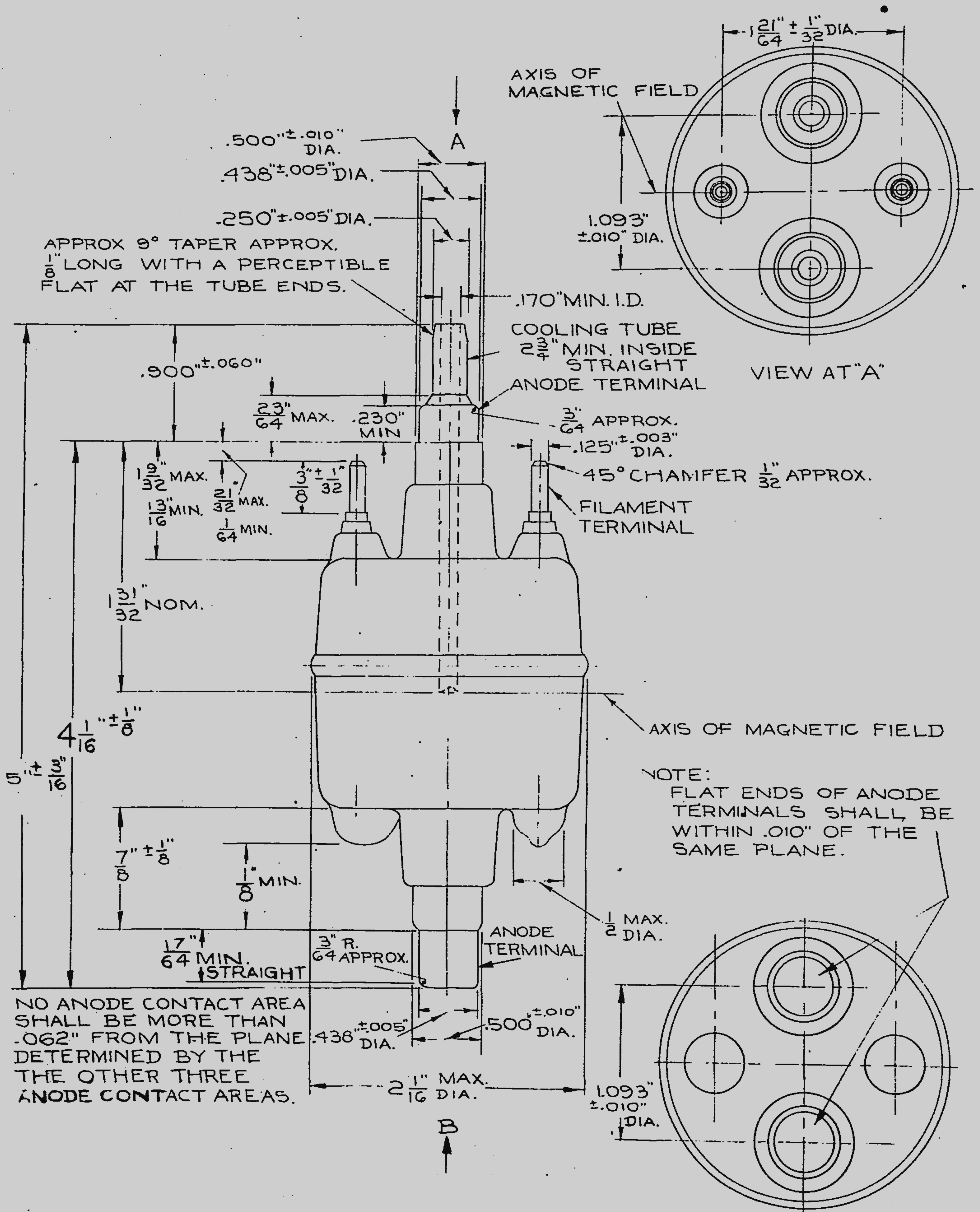


TYPE 5J32





**RADIO MANUFACTURERS ASSOCIATION**  
**ENGINEERING DEPARTMENT**

Release No. 462

January 5, 1946

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**

|                                    | <u>Typical Operation</u> |      |      | <u>Maximum Ratings</u> |              |
|------------------------------------|--------------------------|------|------|------------------------|--------------|
| 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  $E_f$  should be adjusted to the lowest value consistent with optimum operation, then maintained accurately. During starting  $I_f$  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.