

## PULSE MAGNETRON

# 6543A

65 Kilowatts Minimum Peak Power  
Tunable Frequency 8500 to 9600 mcs

The 6543 and the 6543A tunable pulse magnetrons are recommended in all new systems requiring a nominal power output of 80 kW and where tunability is a prime requisite. Extensive life testing demonstrates that these tubes are among the most reliable magnetrons available today.

The LT-6543A magnetron is selected for low frequency and time jitter characteristics and is recommended for use in those systems where tunable moving target indicator performance is required.

### OPERATING CONDITIONS

|                                |                   |
|--------------------------------|-------------------|
| Heater Voltage.....            | 12.6 V            |
| Heater Current.....            | 2.2 A             |
| Preheat Time.....              | Min. 180 sec.     |
| Pulse Voltage.....             | 13.5 to 16.5 kVdc |
| Pulse Current.....             | 15 A              |
| Rate of Rise of Voltage.....   | Max. 160 kv/us    |
| Anode Cathode Capacitance..... | Max. 12 uufd      |

### ABSOLUTE MAXIMUM RATINGS

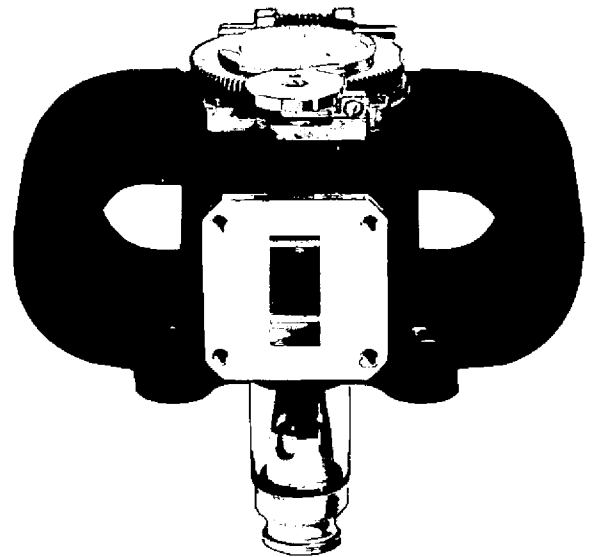
|                           |             |
|---------------------------|-------------|
| Heater Voltage.....       | 13.7 V      |
| Heater Surge Current..... | 10 A        |
| Pulse Current.....        | 18 A        |
| Pulse Length.....         | 5.0 us      |
| Average Input Power.....  | 350 W       |
| Duty Cycle.....           | 0.001       |
| Anode Temperature.....    | 150° C      |
| Cathode Temperature.....  | 175° C      |
| VSWR.....                 | 1.5:1 Ratio |
| Altitude.....             | 552 mmHg    |

### PERFORMANCE CHARACTERISTICS

|                                     |                   |
|-------------------------------------|-------------------|
| Peak Power.....                     | Min. 65 kW        |
| Tunable Frequency.....              | 8500 to 9600 mcs  |
| Pulling Factor (1.5:1 VSWR).....    | Max. 15 mcs       |
| Missing Pulses.....                 | Max. 1 Percent    |
| Side Lobes.....                     | Min. 8 db         |
| Bandwidth.....                      | Max. 2.0/tpc. mcs |
| Anode Temperature Co-efficient..... | Max. 0.25 mc/°C   |
| Vibration (5 to 500 cps).....       | 0.01 Da or 5 G    |
| Shock (11 m s).....                 | 15 G              |
| Rated Cycle Life.....               | 400 hrs.          |
| 6543A Only—Frequency Jitter.....    | Max. 60 kc        |
| Time Jitter.....                    | Max. 1.4 mus      |
| Amplitude Jitter.....               | Max. 0.02 db      |

### MECHANICAL RATINGS

|                             |                      |
|-----------------------------|----------------------|
| Mounting Position.....      | Any                  |
| Weight.....                 | 6 1/8 lbs.           |
| Mating Mounting Flange..... | UG-52A/U             |
| Anode Cooling.....          | Forced Air           |
| Output Pressurization.....  | Max. 45 lbs./sq. in. |
| Cathode Pressurization..... | Max. 45 lbs./sq. in. |



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