Manufacturer's Designation:
JEDEC Designation: 7208
Manufacturer: Western Electric Company

GENERAL CHARACTERISTICS

The 7208 is a pulsed magnetron oscillator tube which operates at a tunable frequency of 15800 to 17200 Mc. The power output is approximately 100 kilowatts and the tube is forced air cooled. The tube uses an integral magnet.

GENERAL ELECTRICAL DATA

Pre-heat Heater Voltage. 12 ± 5% volts
Pre-heat Heater Current at 12.6 Volts. 3.25 ± 0.25 amperes
Minimum Pre-heat Time. 270 seconds
Heater Cold Resistance 0.4 ohm approximately
Anode-Cathode Capacitance 14μf (nominal)

ABSOLUTE MAXIMUM RATINGS

Heater Voltage 13.9 volts
Heater Current 3.5 amperes
Heater Surge Current 13.6 amperes
Peak Anode Voltage 20 kilovolts
Peak Anode Current 20 amperes
Average Power Input 350 watts
Duty Cycle 0.001
Pulse Duration 3.3 microseconds
Rate of Rise of Anode Voltage (above 85% point) 120 KV μs/max.
Output Circuit Pressurization 15 psia min., 45 psia max.
Maximum Altitude without Pressurization
Output Circuit sea level
Input Terminals sea level
Body Temperature 150°C
Cathode Stem Temperature 300°C
VSWR (Magnetron Load) 1.5:1 max.

TYPICAL OPERATING RATINGS

Frequency 15800 to 17200 Mc.
Peak Anode Voltage at 17 Mc 17.5 ± 1.5 kv
Pulling Figure (VSWR 1.5:1) 6 Mc.
Pushing Factor 1 Mc/a
Magnetic Field for External Magnet

from JEDEC release #2946, Aug. 29, 1960
**TYPICAL OPERATING RATINGS (Continued)**

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<td>100 KV/µs</td>
<td>0.6 Mc</td>
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**GENERAL MECHANICAL CHARACTERISTICS**

Mounting Position: any
Mounting Support: See 4 hole Mounting Plate in outline drawing

Weight: 14 lbs. Max.

Coupling between Tube and Load
The tube is coupled to RG 91/U waveguide by means of an UG419/U cover flange or a modified UG54I/U (Clearance holes instead of tapped 6-32 holes) choke flange.

Cooling Data
To limit rise in body temperature to 100°C for a dissipation of 200 watts - 10 cfm

Recommended cathode stem temperature 225°C ± 25°C