

ELECTRONIC TUBE REFERENCE

2J51A

Specialized - Magnetron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
MAGNETRON

Air-cooled integral-magnet pulsed magnetron oscillator tunable from approximately 8.5–9.6 GHz with about 55 kW peak output.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 1 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Magnetron
No fixed ratings recorded.
Published electrical section from 7256.pdf; identical repeated sections compressed when applicable.

Air-cooled integral-magnet pulsed magnetron oscillator tunable from 8500 to 9600 MHz with approximately 55 kW peak output.

SOURCE OPERATING CONDITIONS

1938 Raytheon

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1938 RAYTHEON

Section 1 · Magnetron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
at a tunable frequency of 8500 to	9600 MHz	at a tunable frequency of 8500 to 9600 Mc. The peak power out-
Pre-heat Heater Current at	6.3 V	Pre-heat Heater Current at 6.3 Volts: 1,0 + 0.1 Amperes
Heater Cold Resistance	1 Ω	Heater Cold Resistance 1.0 ohms
Heater Vcltage	7 V	Heater Vcltage 7.0 Volts
Peak Anode Voltage	16 kV	Peak Anode Voltage 16,0 Kilovolts
Peak Anode Current	15.5 A	Peak Anode Current 15,5 Amperes
Average Power Output	230 W	Average Power Output 230 Watts
Pulse Duration	3.4 μs	Pulse Duration 3.4 Microseconds
Bate of Rise of Anode Voltage (above 85 % point)	115 kV	Bate of Rise of Anode Voltage (above 85 % point) 115 kv/us
Frequency	9000 MHz	Frequency 9000 Mc
Peak anode voltage	13.8 kV	Peak anode voltage 13.8 kv
Vibration (non-operating)	50 Hz	Vibration (non-operating) 50 cps @ 10G

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-Cathode Capacitance 4.0 to	8 pF	Anode-Cathode Capacitance 4.0 to 8,0 uuf

1999 Philips 0-D

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1999 PHILIPS 0-D
Section 1 · Magnetron

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
powers of more than	150 W	powers of more than 150 W immediately after the applica-
The heater should be bypassed with a	1000 V	The heater should be bypassed with a 1000 V rated capac-
of the anode to keep its temperature below	150 °C	of the anode to keep its temperature below 150 °C under)
la température de l'anode inférieure a	150 °C	la température de l'anode inférieure a 150 °C pour toute

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
maximum permissible anode temperature of	150 °C	maximum permissible anode temperature of 150 °C involves

TUBE TINKER

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