

ELECTRONIC TUBE REFERENCE

6521

Specialized - Magnetron electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
MAGNETRON

Pulsed microwave magnetron oscillator designed for radar or microwave-transmitter service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	13.5 V / 3.6 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Magnetron

No fixed ratings recorded.

Magnetron. Peak anode voltage/current, pulse input/output, frequency, VSWR, and thermal limits are retained in TUBE_SECTION_PARAMETER because conventional valve promoted fields do not map cleanly.

Pulsed microwave magnetron oscillator for radar or microwave transmitter service. The supplied datasheet was reviewed for heater/filament data, maximum ratings, operating conditions, capacitances, pulse/RF data, and thermal limits.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 6 of 7

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

1971 RCA HB3 BINDER 6 OF 7

Section 1 · Magnetron

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Fixed Frequency: 5400 t 20 Mc – published value 1	5400 MHz	Published datasheet value
Fixed Frequency: 5400 t 20 Mc – published value 2	20 MHz	Published datasheet value
Voltage – published value 1	10	Published datasheet value
Voltage – published value 2	10	Published datasheet value
Current	3.2 A	Published datasheet value
Frequency – published value 1	5400 MHz	Published datasheet value
Frequency – published value 2	20 MHz	Published datasheet value
and heater -cathode to terminal 1 – published value 1	1	Published datasheet value
and heater -cathode to terminal 1 – published value 2	15364	Published datasheet value
should be grooved 50 that the temperature of the anode block does not – published value 1	50	Published datasheet value
should be grooved 50 that the temperature of the anode block does not – published value 2	1	Published datasheet value
maintain the temperature of the heater-cathode terminal below 165°C	165	Published datasheet value
Peak Anode Voltage (Approx.)	5000 V	Published datasheet value
Peak Anode Current	13.5 A	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pulse Repetition Rate	400	Pulse
Pulse Duration	2	Pulse
Peak Power Cut put	65000 W	Published datasheet value
Heater Current – published value 1	1 A	Published datasheet value
Heater Current – published value 2	2.8 A	Published datasheet value
Heater Current – published value 3	3.6 A	Published datasheet value
Peak Anode Voltage – published value 1	2000 V	Published datasheet value
Peak Anode Voltage – published value 2	14000 V	Published datasheet value
Peak Anode Voltage – published value 3	16000 V	Published datasheet value
Peak Power Output – published value 1	23000 W	Published datasheet value
Peak Power Output – published value 2	75000 W	Published datasheet value
Pulses Missing From Total – published value 1	2	Pulse
Pulses Missing From Total – published value 2	0.25	Pulse
Note is With 10.0 volts ac on heater	10	Published datasheet value
No to 2: With peak anode current of 13.5 amperes, and heater voltage re – published value 1	2 A	Published datasheet value
No to 2: With peak anode current of 13.5 amperes, and heater voltage re – published value 2	13.5 A	Published datasheet value
Note 3: With peak anode voltage of approximately 15 kilovolts, anode~, – published value 1	3000 V	Published datasheet value
Note 3: With peak anode voltage of approximately 15 kilovolts, anode~, – published value 2	15000 V	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Note 4: Pulses are considered to be missing if the energy level at the	4	Pulse
operating frequency is less than 70 Per cent of the normal value	70	Published datasheet value
As soon as the 6521 begins to oscillate, the heater voltage	6521	Published datasheet value
3.~ MIN. DEPTH	3	Published datasheet value
NOTE 8: No part of the connector device for the heater	8	Published datasheet value
NOTE 9: The heater terminal and heater-cathode terminal	9	Published datasheet value
PEAK ANODE AMPERES=13.5	13.5 A	Published datasheet value
PULSE DURATION:2 MICROSECONDS	2 s	Pulse
PULSE REPETITION RATE: 400 PPS	400	Pulse
PULSE DURATION 2MICROSECONDS	2	Pulse

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PEAK ANODE VOLTAGE	16000 V	Published datasheet value
" ~ PEAK POWER INPUTS	256000 W	Published datasheet value
AVERAGE POWER INPUT – published value 1	0 mA	Published datasheet value
AVERAGE POWER INPUT – published value 2	256 mA	Published datasheet value
PULSE DURATION	2.2 mA	Pulse
ANODE BLOCK TEMPERATURE	150 mA	Published datasheet value
HEATER-CATHODE TERMINAL TEMPERATURE	165 mA	Published datasheet value
LOAD VOLTAGE STANDING-WAVE RATIO	5 mA	Published datasheet value
Peak anode voltage	16000 V	Pulse
Peak anode current	16 A	Pulse

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker