

ELECTRONIC TUBE REFERENCE

MCV1420

Specialized - Magnetron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
MAGNETRON

Fixed-frequency high-power pulsed magnetron designed for radar and related short-pulse microwave service in its specified operating band.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	5 V / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Magnetron
No fixed ratings recorded. Specialized microwave-device ratings are preserved densely in TUBE_SECTION_PARAMETER because the locked promoted columns do not directly represent beam/helix/collector/magnetron pulse ratings.

Coaxial C-band pulsed magnetron, 5450–5825 MHz, greater than 250 kW peak RF output; forced-air cooled.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1972 Thomson CSF

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

1972 THOMSON CSF

Section 1 · Magnetron

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency Range	5450–5825 MHz	—
Peak Anode Voltage	23–36 kV	—
Peak Anode Current	24 A	—
Peak Power Output Minimum	250 kW	—
Warm-up Voltage	7.5 V	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Surge Current Maximum	50 A	—
Peak Anode Current Maximum	30 A	—
Peak Applied Power Maximum	780 kW	—
Average Applied Power Maximum	780 W	—
Pulse Width Maximum	3 us	—
Duty Cycle Maximum	0.0011	—
Rate of Rise of Voltage Maximum	120 kV/us	—
Typical Frequency	5650 MHz	—
Typical Peak Anode Voltage	25 kV	—
Typical Peak Anode Current	24 A	—
Typical Efficiency	54 percent	—
Typical Peak Output Power	310 kW	—

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

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