

ELECTRONIC TUBE REFERENCE

2J42

Specialized - Magnetron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

MAGNETRON

Amperex pulsed magnetron designed for radar and other high-intensity RF pulse service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 600 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Magnetron	
MAXIMUM CATHODE CURRENT	5.5 A
Microwave-device section. Standard promoted fields contain the closest directly equivalent published anode/beam limits; device-specific quantities are preserved in TUBE_SECTION_PARAMETER.	

2J42 is a Magnetron device. Amperex pulsed magnetron for radar/high-intensity RF pulse service. Published operating, rating, and characteristic data from the supplied page were preserved in the technical output.



SOURCE OPERATING CONDITIONS

1953 RFT Rundfunk Technik

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

1953 RFT RUNDFUNK TECHNIK

Section 1 · Magnetron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	600 mA	Nominal
PeakAnodeCurrentMinimum	3.5 A	—
PeakAnodeCurrentMaximum	5.5 A	—
PulseInputPowerMaximum	33000 W	—
MaximumPulseDuration	2.5 us	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
FrequencyRange	9.345–9.405 GHz	Published operating range
RFOutputPower	7000 W	Pulse



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Amperex Industrial

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

1958 AMPEREX INDUSTRIAL

Section 1 · Magnetron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency	9345–9405 MHz	—
Pulsed RF output power	7 kW	Pulsed

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average RF output power	7 W	Pulsed
Pulsed plate voltage	5.5 kV	Pulsed
Pulsed plate current	4.5 A	Pulsed
Average plate current	4.5 mA	Pulsed
Magnetic field	Packaged	—
Duty factor	0.001	Pulsed



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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
of delivering a peak output power Wop >	7 kW	of delivering a peak output power Wop > 7 kW
3)The heater voltage must be reduced from	6.3 V	3)The heater voltage must be reduced from 6.3 V to 4.5 V
3)The heater voltage must be reduced from	4.5 V	3)The heater voltage must be reduced from 6.3 V to 4.5 V

TUBE TINKER

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