



ELECTRONIC TUBE REFERENCE

EM1093

Specialized - Magnetron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
MAGNETRON

Voltage-tunable magnetron oscillator covering approximately 2475-2725 MHz, typically producing 2-3 W RF output. Frequency is controlled through anode voltage, with an injection-anode electrode and 50-ohm output system incorporated into the oscillator design.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 650 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Magnetron	
MAXIMUM PLATE VOLTAGE	1500 V
<i>Promoted fields populated only where the published value maps directly to the schema; device-specific values retained as parameters.</i>	

° MAGNETRON - FREQUENCY Frequency Range - - 2475-2725 Mc Anode Voltage - - - 1100-1200 V
Cathode Current - - - 12-20 mA Typical Output Power - 2-3 W Anode FM Sensitivity - - 2.5 Mc/volt

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 Eimac

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

1962 EIMAC

Section 1 · Magnetron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
POWER	1.75	POWER 1.75 W
Frequency Range [1]	2475 MHz	Frequency Range - - 2475-2725 Mc
Frequency Range [2]	-2725 MHz	Frequency Range - - 2475-2725 Mc
Anode Voltage [1]	1100	Anode Voltage - - - 1100-1200 V
Anode Voltage [2]	-1200	Anode Voltage - - - 1100-1200 V
Cathode Current [1]	12 mA	Cathode Current - - - 12-20 mA
Cathode Current [2]	-20 mA	Cathode Current - - - 12-20 mA
Typical Output Power [1]	2	Typical Output Power - 2-3 W
Typical Output Power [2]	-3	Typical Output Power - 2-3 W
Anode FM Sensitivity	2.5 MHz	Anode FM Sensitivity - - 2.5 Mc/volt
Injection Anode Voltage	300	Injection Anode Voltage - 300 v
Injection Anode Current	0 mA	Injection Anode Current - 0.0 mA
Heater Voltage (AC) (DC)	6.3	Heater Voltage (AC) (DC) 6.3V
Heater Current (AC) (DC)	65	Heater Current (AC) (DC) .65 A OSCILLATOR
Load Impedance - - =	50 ohm	Load Impedance - - = 50 ohms
Anode Voltage	1500	Anode Voltage - - - 1500 v
Cathode Current - - =	25 mA	Cathode Current - - = - - - 25 mA
Injection Anode Voltage	400	Injection Anode Voltage 400 V
Injection Anode Current	0.5 mA	Injection Anode Current 0.5 mA
ANODE VOLTAGE [1]	1080	ANODE VOLTAGE 1080 1100 1120 140 1160 1180
ANODE VOLTAGE [2]	1100	ANODE VOLTAGE 1080 1100 1120 140 1160 1180

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ANODE VOLTAGE [3]	1120	ANODE VOLTAGE 1080 1100 1120 140 1160 1180
ANODE VOLTAGE [4]	140	ANODE VOLTAGE 1080 1100 1120 140 1160 1180
ANODE VOLTAGE [5]	1160	ANODE VOLTAGE 1080 1100 1120 140 1160 1180
ANODE VOLTAGE [6]	1180	ANODE VOLTAGE 1080 1100 1120 140 1160 1180
Operating Position - - AN00E CURRENT MA [1]	120 mA	Operating Position - - ANOOE CURRENT MA 120 130 13.0 135 135 .8
Operating Position - - AN00E CURRENT MA [2]	130 mA	Operating Position - - ANOOE CURRENT MA 120 130 13.0 135 135 .8
Operating Position - - AN00E CURRENT MA [3]	13 mA	Operating Position - - ANOOE CURRENT MA 120 130 13.0 135 135 .8
Operating Position - - AN00E CURRENT MA [4]	135 mA	Operating Position - - ANOOE CURRENT MA 120 130 13.0 135 135 .8
Operating Position - - AN00E CURRENT MA [5]	135 mA	Operating Position - - ANOOE CURRENT MA 120 130 13.0 135 135 .8
Operating Position - - AN00E CURRENT MA [6]	8 mA	Operating Position - - ANOOE CURRENT MA 120 130 13.0 135 135 .8
Length [1]	4 MHz	Length - - - - 4. 5 inches FREQUENCY / Mc
Length [2]	5 MHz	Length - - - - 4. 5 inches FREQUENCY / Mc
Published value	1	1. COOLING: To insure optimum tube performance the magnet temperature should be maintained
Published value [1]	3	3. TEMPERATURE STABILITY: The permanent magnet for the EM-1093 has been temperature
Published value [2]	1093	3. TEMPERATURE STABILITY: The permanent magnet for the EM-1093 has been temperature
temperature/frequency coefficient for the EM [1]	1093	temperature/frequency coefficient for the EM-1093 package is typically .008% of the operating
temperature/frequency coefficient for the EM [2]	8	temperature/frequency coefficient for the EM-1093 package is typically .008% of the operating
frequency per degree Centigrade. Thus, for an operating frequency of	2600 MHz	frequency per degree Centigrade. Thus, for an operating frequency of 2600 megacycles, the
temperature/frequency coefficient is typically	520	temperature/frequency coefficient is typically 520 kilocycles per degree Centigrade. A positive

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published value	4	4. ANODE VOLTAGE: The operating frequency is a function of the anode voltage; therefore, any
VOLTAGE DECAL C	2472	. VOLTAGE DECAL C 2472
RF_OUTPUT [N\ e L	187	RF_OUTPUT [N\ e L 187 D.

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