



ELECTRONIC TUBE REFERENCE

CV11154

Specialized - Magnetron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
MAGNETRON

Tunable high-power pulsed magnetron designed for radar and related short-pulse microwave service across its specified frequency range.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	186 V / 3.1 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Magnetron

No fixed ratings recorded.

Microwave/special-function section; schema has no directly applicable promoted electrode fields; published electrical data preserved in parameters.

Mechanically tuned puise magnetron, similar to 6657 Tuning range . 2900 to 3100 MHz Typical peak e B output power 1.0 Mw Magnet seenote1on page5 Qutput coaxialline Coupler seepage9 Cooling .« forced-air © 1977 English Electric Valve Company Lirnited November 1977 Supersedes March 1974 Issue

SOURCE OPERATING CONDITIONS

1971 English Electric Valve

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

1971 ENGLISH ELECTRIC VALVE

Section 1 · Magnetron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
e B	1 Mw	e B output power 1.0 Mw
Heater current at 16V	3.1 A	Heater current at 16V 3.1 A
Tuner revolutions to cover frequency range	120	Tuner revolutions to cover frequency range . . . 120 max
Heater starting current {peak}	15 A	Heater starting current {peak} 15 A
Anode voltage {peak}	325 kv	Anode voltage {peak} - 325 kv
Anode current {peak}	70 A	Anode current {peak} - 70 A
Pulse duration	25 s	Pulse duration — 25 s
Cathode terminal temperature	100	Cathode terminal temperature 100 °c
V.S.W.R. at the output coupler	1 V	V.S.W.R. at the output coupler 1.5:1
Heater voltage	4	Heater voltage 8.0 8.0 8.0 4
Anode current {peak}	60 A	Anode current {peak} 70 60 A
Pulse duration	2	Pulse duration 0.5 1.0 2.0 Hs
Pulse repetition rate	300	Pulse repetition rate 1600 600 300 p.ps.
Anode voltage {peak}	30 kv	Anode voltage {peak} 30 30 30 kv
Output power {peak}	800 kW	Output power {peak} 700 1000 800 kW
Output power (mean)	480 w	Output power (mean) 525 500 480 w
Heater voltage {for testt	8 v	Heater voltage {for testt . 10 10 8.0 v
Anode current (mean}	3856 mA	Anode current (mean} . . 35 35 3856 mA
R.F.bandwidththat % power	25	R.F.bandwidththat % power 25 MHzmax
2. With no anode input power.	2	2. With no anode input power.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The above schedule is valid only for pulse repetition rates of 300p.p.s	300 s	The above schedule is valid only for pulse repetition rates of 300p.p.s.
minimum capacitance of 4000pF shunted across the heater directly at	4000	minimum capacitance of 4000pF shunted across the heater directly at
the input terminals; in some cases a capacitance as high as 2uF may be	2 a	the input terminals; in some cases a capacitance as high as 2uF may be
tures as low as -656°C. At this temperature the minimum cathode	-656 °C	tures as low as -656°C. At this temperature the minimum cathode
leading edge of the voltage pulse above 80% amplitude. Any capaci-	80	leading edge of the voltage pulse above 80% amplitude. Any capaci-
11,	11	11, The magnetron will tune over the indicated frequency range.
With the magnetron operating into a v.s.w.r. of 1.5:1 phased to give	1 a	With the magnetron operating into a v.s.w.r. of 1.5:1 phased to give
14,	16 V	14, Measured with heater voltage of 16 V and no anode input power, the
heater current limits are 2.8 A minimum, 3.4 A maximum	3.4 A	heater current limits are 2.8 A minimum, 3.4 A maximum.
16	16	16. Design test only. The maximum frequency change with anode tempera-
16,	16	16, The common cathode connection is marked with letter C

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