

ELECTRONIC TUBE REFERENCE

N1010A

Specialized - Microwave Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

MICROWAVE

O-type backward-wave oscillator designed for wide-band microwave receiver and oscillator applications, suitable for pulse or amplitude modulation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	A7-13	BASE PINS	7
NOMINAL HEATER	6.3 V / 2.3 A	PARALLEL HEATER	- / -
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Microwave
No fixed ratings recorded.
Microwave/special-function section; schema has no directly applicable promoted electrode fields; published electrical data preserved in parameters.

vers and s for wide band microwave recei O-type backward wave oscillator or amplitude modulation. oscillators, suitable for pulse GHz - - = = " 70t 11b

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Microwave

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3	Heater voltage 6.3 \Y
Heater current	2.3 A	Heater current 2.3 A
Cathode pre-heating time (mmlmum)	2 min	Cathode pre-heating time (mmlmum) 2.0 min
cathode to grid, anode and delay line	10 pF	cathode to grid, anode and delay line 10 pF
grid to cathode, anode and delay line	15 pF	grid to cathode, anode and delay line 15 pF
anode to cathode, grid and delay line	15 pF	anode to cathode, grid and delay line 15 pF
deIay line to cathode, grid and anode	10 pF	deIay line to cathode, grid and anode .10 pF
delay line to outer shell	300 pF	delay line to outer shell 300 pF
Heater voltage	6.8	Heater voltage 5.7 6.8 \
Heater starting.current (peak)	4 A	Heater starting.current (peak) - 4.0 A
Delay line voltage	1700	Delay line voltage 250 1700 \
Delay line dissipation	50 W	Delay line dissipation — 50 W
Anode current	10 mA	Anode current - 10 mA
Solenoid current (N1010S)	7 A	Solenoid current (N1010S) 3.0 7.0 A
Heater voltage	6.3	Heater voltage 6.3 \Y
Grid voltage	0	Grid voltage 0 \Y)
Load v.s.w.r	1 v	Load v.s.w.r. 1.2:1 max
Heater current	2.5 A	Heater current 2.0 2.3 2.5 A
Anode current	10 mA	Anode current 2.0 10 mA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Solenoid voltage	24	Solenoid voltage . 16 23 24 \Y
Frequency pulling {see note9)	8	Frequency pulling {see note9) 6.0 8.0 MMz
The optimum anode voltage and solenoid current {for N1010S) are	1010	The optimum anode voltage and solenoid current {for N1010S) are
With a mismatch of v.s.w.r. 1.5:1, varied through all phases	1 a	With a mismatch of v.s.w.r. 1.5:1, varied through all phases.
bandwidth, centred at least 20MHz from the carrier	20	bandwidth, centred at least 20MHz from the carrier. For low noise
. i ANODE VOLTAGE 150V	150	. i ANODE VOLTAGE 150V
1 Heater	1	1 Heater
2 Cathode	2	2 Cathode
3 Anode	3	3 Anode
4 Grid	4	4 Grid
7 Heater	7	7 Heater
@PC'DIA	1	@PC'DIA 1 Heater
2 PINS	2	2 PINS 2 Cathode
. 4 Grid	4	. 4 Grid
B5*	5	B5* Delay line
" " " "	7	" " " " 7 Heater

TUBE TINKER

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