



ELECTRONIC TUBE REFERENCE

1B24

Specialized - Switching Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

MICROWAVETR SWITCH

Gas-filled microwave TR/ATR switching tube for pulsed transmitter/receiver duplexer service, protecting or isolating receiver and transmitter paths during radar pulses.

GENERAL CHARACTERISTICS

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

SECTION RATINGS

SECTION 1 Microwave TR Switch

No fixed ratings recorded.

Source-derived physical section; applicable promoted ratings are populated from the printed sheet.

e Type 1B24 TR Tube GENERAL CHARACTERISTICS Electrical Max. Ignitor Ignition Time 5 Seconds Max. Insertion Loss 1.5 Decibels Frequency Tuning Range 8490 - 9600 Megacycles Ignitor Voltage Drop for 100 Microamperes 325 - 450 Volts Max. Peak Leakage Power 30 Milliwatts Max. Loaded Q 350 Recovery Time - Loss of signal in the tube four microseconds following the pulse shall not be more than 3 db in excess of the loss, 100 microseconds following the pulse. Ignitor Interaction, Max. 0.2 Decibel Mechanical Tunable Medium Gas Number of Electrodes *2 Dimensions See Outline Mounting Position Any MAXIMUM RATINGS Ignitor Open Circuit Voltage, DC = 750 to -1000 Volts Ignitor Current 100 to 200 Microamps. Ambient Temperature Range -85 to +100°C * The two points at the center of the tube constitute an rf gap, while the ignitor (at extreme end of reservoir and negative) and body constitute a dc gap used to produce ionization to help trigger the rf gap. Bloomfield, New Jersey December 5, 1945) fro

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1947 Westinghouse

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

1947 WESTINGHOUSE

Section 1 · MicrowaveTRSwitch

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Max. Ignitor Ignition Time	5 s	Max. Ignitor Ignition Time 5 Seconds
Max. Insertion Loss	1.5 dB	Max. Insertion Loss 1.5 Decibels
Ignitor Voltage Drop for	100 V	Ignitor Voltage Drop for 100
Microempere	450 V	Microempere 325 - 450 Volts
Max. Peak Leakage Power	30 mW	Max. Peak Leakage Power 30 Milliwatts
Ignitor Interaction, Max	0.2 Decibel	Ignitor Interaction, Max. 0.2 Decibel
Ignitor Open Circuit Voltage, DC =	-1000 V	Ignitor Open Circuit Voltage, DC =750 to -1000 Volts
Ignitor Current	200 A	Ignitor Current 100 to 200 Microamps.

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency Tuning Range	9600 MHz	Frequency Tuning Range 8490 - 9600 Megacycles