



ELECTRONIC TUBE REFERENCE

W72D

Specialized - Traveling Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRAVELINGWAVE

Traveling-wave amplifier for approximately 3.6–4.2 GHz service, providing about 1 GHz bandwidth without retuning for wideband microwave amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 1 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 TravelingWave	
MAXIMUM PLATE VOLTAGE	3200 V
MAXIMUM CATHODE CURRENT	18 mA
<i>Published ratings and characteristics promoted where applicable; remaining useful values retained as parameters.</i>	

The W7/2D is a travelling-wave amplifier for use from 3600 to 4200 Mc/s, with about 1000 Mc/s bandwidth for wide-band amplification without retuning.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1946 Standard Telephone and Cables

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

1946 STANDARD TELEPHONE AND CABLES

Section 1 · TravelingWave

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum pre-heating time	120 s	—
Amplification, small signal	20 dB	—
Amplification at one watt output	18 dB	—
Maximum output power	2.5 W	—
Bandwidth between 3 dB gain points	1000— Mc/s	—
Cold transmission loss	40 dB	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Operating frequency range	3600–4200 Mc/s	—
Maximum direct second anode and helix voltage	3.2 kV	—
Maximum direct second anode and helix current	4 mA	—
Maximum direct first anode voltage	2 kV	—
Maximum direct first anode current	500 uA	—
Maximum direct collector voltage	3.5 kV	—
Maximum direct cathode current	18 mA	—
Direct second anode and helix voltage	3 kV	SHF Amplifier 3900Mc/s
Direct collector voltage	3.05 kV	SHF Amplifier 3900Mc/s

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Direct collector current	14 mA	SHF Amplifier 3900Mc/s
Direct first anode voltage	1.3 kV	SHF Amplifier 3900Mc/s
Direct cathode current	15 mA	SHF Amplifier 3900Mc/s
Maximum power output	2.5 W	SHF Amplifier 3900Mc/s
Cooling air flow	4 cu ft/min	Forced Air Cooling

TUBE TINKER

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and their source documents.

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