

ELECTRONIC TUBE REFERENCE

X1131

Specialized - Traveling Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRAVELINGWAVE

Miniaturized metal-ceramic permanent-magnet-focused traveling-wave amplifier covering 7-8 GHz, designed specifically for long-life space applications.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 200 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 TravelingWave

No fixed ratings recorded.

Microwave-device ratings have no dedicated promoted voltage/dissipation columns in this schema; applicable maximum cathode current is promoted and specialized published ratings are preserved in TUBE_SECTION_PARAMETER.

Miniaturized metal-ceramic PPM-focused traveling-wave-tube amplifier for long-life space applications, 7-8 GHz.

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 · TravelingWave

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament Voltage Maximum	10 V	—
Filament Current Maximum	300 mA	—
Helix Voltage	1200–1600	—
Body and Helix Current Maximum	1 mA	—
Collector Voltage	550–1600	—
Collector Current Maximum	16 mA	—
Focus Electrode Voltage Minimum	-100 V	—
Focus Electrode Current Maximum	1 mA	—
Anode Voltage	1650–1800	—
Anode Current Maximum	0.2 mA	—
Beam Power Input Maximum	25 W	—
RF Input Power Maximum	100 mW	—
Power Reflected From Load Maximum	3 W	—
Typical Helix Voltage	1450 V	—
Typical Collector Voltage	575 V	—
Typical Anode Voltage	1550 V	—
Small Signal Gain Typical	43 dB	—
Saturated Power Output Typical	3 W	—
Saturated Gain Typical	38 dB	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Noise Figure Typical	28 dB	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode Warm-up Time	120 s	—
Frequency Range	7–8	—
Small Signal Gain Minimum	40 dB	—
Saturated Power Output Minimum	2.5 W	—
Saturated Gain Minimum	36 dB	—

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

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