

ELECTRONIC TUBE REFERENCE

X282

Specialized - Traveling Wave electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRAVELINGWAVE

Continuous-wave 4-8 GHz traveling-wave amplifier producing about 10 W, using a helical slow-wave structure, external solenoid focusing, and air- or water-cooled collector.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 1.5 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 TravelingWave

No fixed ratings recorded.

Specialized microwave/image-intensifier device. Published beam, cathode, anode, helix, collector, RF, gain/noise, and optical ratings are preserved in TUBE_SECTION_PARAMETER rather than forced into unrelated promoted plate/screen fields.

4-8 GHz 10 W CW traveling-wave amplifier with helical slow-wave structure; external solenoid focusing; air or water cooled collector.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 ITT

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

1962 ITT

Section 1 · TravelingWave

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency Range	4–8 GHz	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Control Electrode Capacitance	15 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Voltage Maximum	3000 V	—
Helix Current Maximum	2 mA	—
Collector Dissipation Maximum	196 W	—
Positive Control Electrode Voltage Maximum	0 V	—
Typical Frequency	6 GHz	PowerAmplifier
Typical Anode Voltage	2600 V	PowerAmplifier
Typical Anode Current	55 mA	PowerAmplifier
Typical Helix Current	1 mA	PowerAmplifier
Typical Output Power	10 W	PowerAmplifier
Typical Gain	28 dB	PowerAmplifier
Typical Anode Voltage	2550 V	LowLevelAmplifier
Typical Anode Current	53 mA	LowLevelAmplifier
Typical Output Power	300 mW	LowLevelAmplifier
Typical Gain	33 dB	LowLevelAmplifier

TUBE TINKER

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