



ELECTRONIC TUBE REFERENCE

F2516

Specialized - Traveling Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRAVELINGWAVE

Voltage-tunable backward-wave oscillator using a helix slow-wave structure and permanent-magnet focusing for compact microwave signal generation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 960 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 TravelingWave

No fixed ratings recorded.

Applicable promoted fields mapped from printed headings; specialized microwave/imaging/electrode data retained densely in TUBE_SECTION_PARAMETER.

F2516 voltage-tunable backward-wave oscillator with permanent-magnet focusing and helix slow-wave structure.

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	5.3–10.3 GHz	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output Range	25–200 mW	—
Power Output Minimum	20 mW	—
Power Output Variation Maximum	10 dB	—
Fine Grain Variation Maximum	2.5 dB	—
Anode Voltage Typical	200 V	—
Anode Voltage Maximum	250 V	—
Anode Current Typical	0.25 mA	—
Anode Current Maximum	1 mA	—
Cathode Current Typical	10 mA	—
Cathode Current Maximum	15 mA	—
Helix Current Typical	4 mA	—
Helix Current Maximum	6 mA	—
RF Cutoff Grid Voltage Typical	-20 V	—
RF Cutoff Grid Voltage Maximum	-30 V	—
Collector Voltage Typical	100 V	—
Collector Voltage Maximum	150 V	—
Cathode Voltage Typical Range	-2400--245 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode Voltage Absolute Range	~~-2500~~ --200 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode-All-Electrodes Capacitance Typical	40 pF	—
Cathode-All-Electrodes Capacitance Maximum	50 pF	—
Grid-All-Electrodes Capacitance Typical	30 pF	—
Grid-All-Electrodes Capacitance Maximum	45 pF	—
Helix-All-Electrodes Capacitance Typical	120 pF	—
Helix-All-Electrodes Capacitance Maximum	200 pF	—

TUBE TINKER

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

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