

ELECTRONIC TUBE REFERENCE

4009

Specialized - Traveling Wave electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRAVELINGWAVE

Helix traveling-wave amplifier for 2-4 GHz broadband receiver and driver service, using periodic permanent-magnet electron-beam focusing.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 1.3 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 TravelingWave	
MAXIMUM CATHODE CURRENT	6 mA
Published maximum ratings and electrical characteristics promoted from the approved source.	

Helix traveling-wave amplifier with periodic-permanent-magnet focusing for 2-4 GHz driver and wideband receiver service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1940 RCA

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

1940 RCA

Section 1 · TravelingWave

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	1.3 A	Nominal
Maximum Cathode Current	6 mA	—
CollectorVoltageMaximum	1000 V	—
HelixVoltageMaximum	1000 V	—
GridNo2VoltageMaximum	300 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
FrequencyRange	—	2 to 4 GHz
SaturatedPowerOutput	0.028 W	Typical CW operation at 3 GHz
SmallSignalGain	38 dB	Typical CW operation at 3 GHz



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1960 RCA Industrial and Communications Types

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

1960 RCA INDUSTRIAL AND COMMUNICATIONS TYPES

Section 1 · TravelingWave

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency minimum	2000 MHz	—
Frequency maximum	4000 MHz	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focusing method	Periodic permanent magnet	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Saturated RF output	0.028 W	—
Gain	35 dB	—