ELECTRONIC TUBE REFERENCE

CV2453

Voltage - Triode (single high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

High-frequency triode for grounded-grid amplification, low-noise amplification, oscillation, or frequency multiplication in VHF/UHF equipment.

General characteristics

BASE DESIGNATION	—	**BASE PINS**	—
NOMINAL HEATER	6.3 V / 370 mA	**PARALLEL HEATER**	— / —
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 Triode	
TRANSCONDUCTANCE	0.015 S
AMPLIFICATION FACTOR	60
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	25 mA

Commercial version designation explicitly covered by A2521 datasheet; heater current differs and is recorded in TUBE.csv.

A UHF triode for grounded-grid circuits as a low-noise amplifier, small power amplifier or frequency multiplier at frequencies up to 1250 MHz. The A2521 is a commercial version of the CV2453 except for heater-current rating.

SOURCE OPERATING CONDITIONS

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PeakAnodeVoltage	**1000 V**	—
Peak Cathode Current	**700 mA**	Pulse<2us
DCGridCurrentMax	**6 mA**	—
small power ampl ifier or frequency multi pi ier at frequencies up to	**1250 MHz**	—
Heater voltage	**6.3 V**	—
Heater current (approx) - A2521	**300 mA**	—
Heater current (approx) - CV2453	**370 mA**	—
DC anode voltage	**250 V**	MAXIMUM RATINGS
Peak anode voltage	**1000 V**	MAXIMUM RATINGS
Anode dissipation	**2.5 W**	MAXIMUM RATINGS
DC grid current	**6 mA**	MAXIMUM RATINGS
DC cathode current	**25 mA**	MAXIMUM RATINGS
Peak cathode current (pulse duration 2/ls)	**700 mA**	MAXIMUM RATINGS
Negative dc grid voltage	**20 V**	MAXIMUM RATINGS
Peak heater-cathode voltage	**100 V**	MAXIMUM RATINGS
Frequency 1250 900 400	**200 MHz**	Typical Operation
Vb 180 180 180	**180 V**	Typical Operation
la 16 16 16	**16 mA**	Typical Operation
6f (to	**3 dB**	Typical Operation
6f (to 3 dB) 20 50 6	**4 MHz**	Typical Operation

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
tPower gain 9 10 17	**14.5 dB**	Typical Operation
t j Noise factor 11 1 9 5 6 7	**4.6 dB**	Typical Operation
DC anode voltage	**250 V**	Typical Operation
Anode dissipation	**2.5 W**	Typical Operation
Peak anode current	**100 mA**	Typical Operation
DC grid current	**6 mA**	Typical Operation
Positive dc cathode to grid voltage	**20 V**	Typical Operation
Frequency 400	**900 MHz**	Typical Operation as Amplifier
DC anode voltage 250	**150 V**	Typical Operation as Amplifier
Anode dissipation 2	**2.4 W**	Typical Operation as Amplifier
DC anode cu rrent 18	**20 mA**	Typical Operation as Amplifier
DC grid current 4 5	**2.5 mA**	Typical Operation as Amplifier
Positive dc cathode to grid voltage 10 5	**5 V**	Typical Operation as Amplifier
Driving power 0 3	**0.45 W**	Typical Operation as Amplifier
Load power (approx 2 6	**0.9 W**	Typical Operation as Amplifier
Frequency-in 200 133 3 450 300	**416.6 MHz**	Typical Operation as Frequency Multiplier
Frequency-out 400 400 900 900	**1250 MHz**	Typical Operation as Frequency Multiplier
Va 200 200 140 90	**130 V**	Typical Operation as Frequency Multiplier
r g 2 4 2 5 2 4 2 5	**2.4 W**	Typical Operation as Frequency Multiplier
la 20 15 20 20	**18.5 mA**	Typical Operation as Frequency Multiplier
Ig 3 5 1 5 3 5 3 0	**1.5 mA**	Typical Operation as Frequency Multiplier
+Vkil 20 20 15 10	**10.5 V**	Typical Operation as Frequency Multiplier
Pdr 0 6 0 55 0 6 1 2	**0.22 W**	Typical Operation as Frequency Multiplier
PL (approx) 1 8 0 75 0 7 0 3	**0.05 W**	Typical Operation as Frequency Multiplier

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Cathode plus heater to grid	**3.5 pF**	CAPACITANCES (Measured on a cold unscreened valve)

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode to grid	**1.6 pF**	CAPACITANCES (Measured on a cold unscreened valve)
Cathode plus heater to anode	**0.06 pF**	CAPACITANCES (Measured on a cold unscreened valve)
DC anode voltage	**130 V**	CAPACITANCES (Measured on a cold unscreened valve)
DC anode current	**16 mA**	CAPACITANCES (Measured on a cold unscreened valve)
Negative dc grid voltage (approx)	**1 V**	CAPACITANCES (Measured on a cold unscreened valve)