

ELECTRONIC TUBE REFERENCE

8BU11

Voltage - Dual Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS

CONSTRUCTION

PENTODE-TRIODE-TRIODE

Duodecar television tube combining a medium-mu twin triode with a sharp-cutoff pentode for receiver signal-processing and amplifier applications.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12FP	BASE PINS	12
NOMINAL HEATER	7.8 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

12FP - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	H – Heater	CONNECTED
PIN2	C	K – Cathode	CONNECTED
PIN3	C	P – Plate (Anode)	CONNECTED
PIN4	C	G1 – Control Grid	CONNECTED
PIN5	B	K – Cathode	CONNECTED
PIN6	B	G1 – Control Grid	CONNECTED
PIN7	B	P – Plate (Anode)	CONNECTED
PIN8	A	G1 – Control Grid	CONNECTED
PIN9	A	G2 – Screen Grid	CONNECTED
PIN10	A	P – Plate (Anode)	CONNECTED
PIN11	A	K – Cathode	CONNECTED
PIN12	–	H – Heater	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	5000 Ω
TRANSCONDUCTANCE	0.0086 S
AMPLIFICATION FACTOR	43
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1.8 W
<i>Representative row for two electrically identical medium-mu triode sections; shared ratings/characteristics.</i>	

SECTION2 Pentode	
PLATE RESISTANCE	200000 Ω
TRANSCONDUCTANCE	0.0075 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM SCREEN DISSIPATION	0.55 W
<i>Sharp-cutoff pentode section.</i>	

SECTION3 Triode	
PLATE RESISTANCE	5000 Ω
TRANSCONDUCTANCE	0.0086 S
AMPLIFICATION FACTOR	43
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1.8 W
<i>Second physical triode section; added to align rows with SectionCount.</i>	

Duodecar tube combining a medium-mu twin triode with a sharp-cutoff pentode for television receiver applications.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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
Heater Characteristics and Ratings (PgltoPp) 0	11 pF	GENERAL
Heater Voltage AC or DC	7.8 V	GENERAL
Heater Current 0 620 04 Amperes Pg2 + Pg3 + h + i s)	5 pF	GENERAL
Pg3 +h +1 8) e+ o	3.2 pF	Grid to Plate (Tlg to Tlp) 1 7 pf MECHANICAL
Pg3 +h +dis) 2	0 pF	Grid to Plate (Tlg to Tlp) 1 7 pf MECHANICAL
Pk + Pg3 +h+li s)	1.7 pF	Grid to Plate (Tlg to Tlp) 1 7 pf MECHANICAL
Plate Voltage + + 0 0 0 0 0 0 0 0 0 s 0 0 0 0 0 s 0	33 V	9-65 MAXIMUM RATINGS
Screen Supply Voltage + + + 0 0 0 0 0 +	330 V	9-65 MAXIMUM RATINGS
Positive DC Grid-Number 1 Voltage + + 0 0 0 0 0 0 0 0 0 0	0 V	9-65 MAXIMUM RATINGS
Plate Dissipation + + 0 0 + s+ e e s s+ s s 2 e e e	2.5 W	9-65 MAXIMUM RATINGS
Screen Dissipation + 4+ e e 4 e e e e e e s e e e	0.55 W	9-65 MAXIMUM RATINGS
DC Component + 0 0 0 0 0 0 0 0 s e o s 0	100 V	9-65 MAXIMUM RATINGS
Total DC and Peak e e e e s 4 e e s e e e e	4200 V	9-65 MAXIMUM RATINGS
Total DC and Peak + v + 0 0 0 0 0 0 0 0	200 V	9-65 MAXIMUM RATINGS
With Fixed Bias v o s 0 0 s 0 0 0 0 s 0 0 0 0 0	0.5 MOhm	9-65 MAXIMUM RATINGS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
With Cathode Bids + + o o o s o o o o o o o +	10 MOhm	9-65 MAXIMUM RATINGS
Positive DC Grid Voltage e e e e e e e s e s e e e e e e e e e	0 V	9-65 MAXIMUM RATINGS
Plate Dissipation + o + o o o o o s+ e e 4 e e e + e + o	1.8 W	9-65 MAXIMUM RATINGS
DC C0mMp0oNnent o o o o o o o o o o o o o o o s o o	100 V	9-65 MAXIMUM RATINGS
Total DC and Peak e e e e e a4 s s e e s e s	200 V	9-65 MAXIMUM RATINGS
Total DC and Peak + + + o s o o o o + o o	200 V	9-65 MAXIMUM RATINGS
With Fixed Bias o + + o o o o o o o o o o o s o o o o	0.5 MOhm	9-65 MAXIMUM RATINGS
With Cathode Bias v o o o o o o o o o o	10 MOhm	9-65 MAXIMUM RATINGS
Plate Voltage	125 V	CHARACTERISTICS AND TYPICAL OPERATION (Cont d)
Cathode-Bias Resistor	68 Ohm	CHARACTERISTICS AND TYPICAL OPERATION (Cont d)
Plate Resistance approximate	5000 Ohm	CHARACTERISTICS AND TYPICAL OPERATION (Cont d)
Transconductance	8600 uS	CHARACTERISTICS AND TYPICAL OPERATION (Cont d)
Plate Current	13.5 mA	CHARACTERISTICS AND TYPICAL OPERATION (Cont d)
Ib 100 Microamperes	-8 V	CHARACTERISTICS AND TYPICAL OPERATION (Cont d)
Heater voltage for a bogey tube at If	600 mA	CHARACTERISTICS AND TYPICAL OPERATION (Cont d)
The time required for the voltage across the heater to reach	80 %	CHARACTERISTICS AND TYPICAL OPERATION (Cont d)
4 Ecl	0 V	CHARACTERISTICS AND TYPICAL OPERATION (Cont d)
30 Ect	0 V	CHARACTERISTICS AND TYPICAL OPERATION (Cont d)
E /	25 V	CHARACTERISTICS AND TYPICAL OPERATION (Cont d)

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PlateVoltageTypical	125 V	EachTriode
Cathode Bias Resistor	68 0hm	EachTriode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Direct Interelectrode Capacitances Pg2 + Pg3 + h + i s)	2.4 pF	Direct Interelectrode Capacitances Pg2 + Pg3 + h + i s) 2 4
Plate Voltage + + + o o o o o o o o o o o o e	2125 V	AVERAGE CHARACTERISTICS
Screen Voltage + s s e s s + s 4 e 4 e e e e e e	125 V	AVERAGE CHARACTERISTICS
Grid-Number 1 Voltage + o o o o o o o o s o s o	-1 V	AVERAGE CHARACTERISTICS
Plate Resistance approximate + + + + s s s	200000 0hm	AVERAGE CHARACTERISTICS
Transconductance s o o o s e e e e e e e e	7500 uS	AVERAGE CHARACTERISTICS
Plate Current + o o o o o o o o s s 4 e e s e s e e +	12 mA	AVERAGE CHARACTERISTICS
Screen Current + + 4 s + s s s o e e e 4 e s + e e	4 mA	AVERAGE CHARACTERISTICS
Ib 30 Microamperes + + o + s o o o o o o e + e 2 + +	8 V	AVERAGE CHARACTERISTICS
PlateCurrentTypical	13.5 mA	EachTriode

1968 GENERAL ELECTRIC CO
Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PlateVoltageTypical	125 V	Pentode
ScreenVoltageTypical	125 V	Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PlateCurrentTypical	12 mA	Pentode
ScreenCurrentTypical	4 mA	Pentode

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1975 RCA RC30

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

1975 RCA RC30

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
up time,	11 seconds	Published in approved 8BU11 target datasheet entry; Section1
Plate Voltage 330	330 V	Published in approved 8BU11 target datasheet entry; Section1
Grid-No.1 (Control-Grid) Voltage, Positive-bias value 0	0 V	Published in approved 8BU11 target datasheet entry; Section1
Plate Dissipation 2.5	1.8 W	Published in approved 8BU11 target datasheet entry; Section1
For grid-No.2 voltages up to	165 V	Published in approved 8BU11 target datasheet entry; Section1
For grid-No.2 voltages between 165 and	330 V	Published in approved 8BU11 target datasheet entry; Section1
Plate Supply Voltage 125	125 V	Published in approved 8BU11 target datasheet entry; Section1
Grid-No.2 Voltage	125 V	Published in approved 8BU11 target datasheet entry; Section1
For fixed-bias operation 0.5	0.6 MΩ	Published in approved 8BU11 target datasheet entry; Section1
For cathode-bias operation 1	1 MΩ	Published in approved 8BU11 target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.1 Voltage	-1 V	Published in approved 8BU11 target datasheet entry; Section1
Cathode-Bias Resistor	68 Ω	Published in approved 8BU11 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx.) 200000	50000 Ω	Published in approved 8BU11 target datasheet entry; Section1
Transconductance 7500	8600 μS	Published in approved 8BU11 target datasheet entry; Section1
Plate Current 12	13.5 mA	Published in approved 8BU11 target datasheet entry; Section1
Grid-No.2 Current	4 mA	Published in approved 8BU11 target datasheet entry; Section1
of 30 /iA	-8 V	Published in approved 8BU11 target datasheet entry; Section1

1975 RCA RC30

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
up time,	11 seconds	Published in approved 8BU11 target datasheet entry; Section2
Plate Voltage 330	330 V	Published in approved 8BU11 target datasheet entry; Section2
Grid-No.1 (Control-Grid) Voltage, Positive-bias value 0	0 V	Published in approved 8BU11 target datasheet entry; Section2
Plate Dissipation 2.5	1.8 W	Published in approved 8BU11 target datasheet entry; Section2
For grid-No.2 voltages up to	165 V	Published in approved 8BU11 target datasheet entry; Section2
For grid-No.2 voltages between 165 and	330 V	Published in approved 8BU11 target datasheet entry; Section2
Plate Supply Voltage 125	125 V	Published in approved 8BU11 target datasheet entry; Section2
Grid-No.2 Voltage	125 V	Published in approved 8BU11 target datasheet entry; Section2
For fixed-bias oi>eration 0.5	0.6 MΩ	Published in approved 8BU11 target datasheet entry; Section2
For cathode-bins operation 1	1 MΩ	Published in approved 8BU11 target datasheet entry; Section2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.1 Voltage	-1 V	Published in approved 8BU11 target datasheet entry; Section2
Cathode-Bias Resistor	68 Ω	Published in approved 8BU11 target datasheet entry; Section2
Plate Resistance (Approx.) 200000	50000 Ω	Published in approved 8BU11 target datasheet entry; Section2
Transconductance 7500	8600 μS	Published in approved 8BU11 target datasheet entry; Section2
Plate Current 12	13.5 mA	Published in approved 8BU11 target datasheet entry; Section2
Grid-No.2 Current	4 mA	Published in approved 8BU11 target datasheet entry; Section2
of 30 μA	-8 V	Published in approved 8BU11 target datasheet entry; Section2

TUBE TINKER

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

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker