

ELECTRONIC TUBE REFERENCE

8B8

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Triode/power-pentode combination for television vertical oscillator/output and audio-frequency amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9EX	BASE PINS	9
NOMINAL HEATER	16 V / 300 mA	PARALLEL HEATER	8 V / 600 mA
HEATING	Indirect	SERIES OPERATION	Capable
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

9EX - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	B	G1 – Control Grid	CONNECTED
PIN2	A	G3 – Suppressor Grid	CONNECTED
PIN2	A	K – Cathode	CONNECTED
PIN3	A	G1 – Control Grid	CONNECTED
PIN4	–	H – Heater	CONNECTED
PIN5	–	H – Heater	CONNECTED
PIN6	A	P – Plate (Anode)	CONNECTED
PIN7	A	G2 – Screen Grid	CONNECTED
PIN8	B	K – Cathode	CONNECTED
PIN9	B	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.0025 S
AMPLIFICATION FACTOR	70
MAXIMUM PLATE VOLTAGE	250 V
<i>Published Rogers/JETEC/RMA ratings and characteristics promoted where applicable; additional data retained as parameters.</i>	

SECTION2 Pentode	
PLATE RESISTANCE	20000 Ω
TRANSCONDUCTANCE	0.0064 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	7 W
MAXIMUM CATHODE CURRENT	50 mA
<i>Published Rogers/JETEC/RMA ratings and characteristics promoted where applicable; additional data retained as parameters.</i>	

High-mu triode plus power pentode used for television vertical oscillation/output and for audio-frequency amplification/output.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1959 Rogers

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

1959 ROGERS

Section 1 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Frame time-base oscillator / AF amplifier	—

1959 ROGERS

Section 2 · Pentode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Frame output / AF output	—



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
Heater Voltage 8	16 V	Published in approved 8B8 target datasheet entry; Section1
Heater Current 0.6	300 mA	Published in approved 8B8 target datasheet entry; Section1
Heater-Cathode Voltage ± 200	200 V	Published in approved 8B8 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage 550	550 V	Published in approved 8B8 target datasheet entry; Section1
Peak Plate Voltage* 600	2500 V	Published in approved 8B8 target datasheet entry; Section1
Plate Voltage 250	250 V	Published in approved 8B8 target datasheet entry; Section1
Peak Inverse Plate Voltage	500 V	Published in approved 8B8 target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Supply Voltage	550 V	Published in approved 8B8 target datasheet entry; Section1
Grid-No.2 Voltage	250 V	Published in approved 8B8 target datasheet entry; Section1
Cathode Current	50 mA	Published in approved 8B8 target datasheet entry; Section1
Plate Dissipation (Frame Output)	5 W	Published in approved 8B8 target datasheet entry; Section1
Plate Dissipation (Audio Output)	7 W	Published in approved 8B8 target datasheet entry; Section1
Grid-No.2 Input	1.8 W	Published in approved 8B8 target datasheet entry; Section1
Peak Grid-No.2 Input	3.2 W	Published in approved 8B8 target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 100 100 170 200	200 V	Published in approved 8B8 target datasheet entry; Section1
Grid-No.2 Voltage 100 170 200	200 V	Published in approved 8B8 target datasheet entry; Section1
Grid-No.1 Voltage 0 -6 -11.5 -12.5	-16 V	Published in approved 8B8 target datasheet entry; Section1
Plate Resistance – 15000 16000 20500	20000 Ω	Published in approved 8B8 target datasheet entry; Section1
Transconductance 2500 6800 7500 6800	6400 μS	Published in approved 8B8 target datasheet entry; Section1
Plate Current 3.5 26 41 35	7 mA	Published in approved 8B8 target datasheet entry; Section1
Grid-No.2 Current 5 6.5	35 mA	Published in approved 8B8 target datasheet entry; Section1

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage 8	16 V	Published in approved 8B8 target datasheet entry; Section2
Heater Current 0.6	300 mA	Published in approved 8B8 target datasheet entry; Section2
Heater-Cathode Voltage ± 200	200 V	Published in approved 8B8 target datasheet entry; Section2
Plate Supply Voltage 550	550 V	Published in approved 8B8 target datasheet entry; Section2
Peak Plate Voltage* 600	2500 V	Published in approved 8B8 target datasheet entry; Section2
Plate Voltage 250	250 V	Published in approved 8B8 target datasheet entry; Section2
Peak Inverse Plate Voltage	500 V	Published in approved 8B8 target datasheet entry; Section2
Grid-No.2 (Screen-Grid) Supply Voltage	550 V	Published in approved 8B8 target datasheet entry; Section2
Grid-No.2 Voltage	250 V	Published in approved 8B8 target datasheet entry; Section2
Cathode Current	50 mA	Published in approved 8B8 target datasheet entry; Section2
Plate Dissipation (Frame Output)	5 W	Published in approved 8B8 target datasheet entry; Section2
Plate Dissipation (Audio Output)	7 W	Published in approved 8B8 target datasheet entry; Section2
Grid-No.2 Input	1.8 W	Published in approved 8B8 target datasheet entry; Section2
Peak Grid-No.2 Input	3.2 W	Published in approved 8B8 target datasheet entry; Section2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 100 100 170 200	200 V	Published in approved 8B8 target datasheet entry; Section2
Grid-No.2 Voltage 100 170 200	200 V	Published in approved 8B8 target datasheet entry; Section2
Grid-No.1 Voltage 0 -6 -11.5 -12.5	-16 V	Published in approved 8B8 target datasheet entry; Section2

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Plate Resistance – 15000 16000 20500	20000 Ω	Published in approved 8B8 target datasheet entry; Section2
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