

ELECTRONIC TUBE REFERENCE

42KN6

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
BEAMPOWER

High-transconductance Duodecar beam pentode for horizontal-deflection output in color and monochrome televisions, with approximately 30 W plate dissipation and strong pulse-current capability.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12GU	BASE PINS	12
NOMINAL HEATER	42 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

12GU - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	H – Heater	CONNECTED
PIN2	A	K – Cathode	CONNECTED
PIN2	B	K – Cathode	CONNECTED
PIN3	–	G2 – Screen Grid	CONNECTED
PIN4	–	G3 – Suppressor Grid	CONNECTED
PIN5	–	G1 – Control Grid	CONNECTED
PIN7	–	–	IC
PIN9	–	–	IC
PIN10	–	G3 – Suppressor Grid	CONNECTED
PIN11	–	–	IC
PIN12	–	H – Heater	CONNECTED
CAP1	A	P – Plate (Anode)	CONNECTED
CAP1	B	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	4000 Ω
TRANSCONDUCTANCE	0.016 S
AMPLIFICATION FACTOR	4.5
MAXIMUM PLATE VOLTAGE	770 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	30 W
MAXIMUM SCREEN DISSIPATION	5 W
MAXIMUM CATHODE CURRENT	400 mA
Published maximum ratings and characteristics promoted semantically from the approved source.	

Duodecar beam pentode used as a horizontal-deflection amplifier in color and black-and-white television receivers.



SOURCE OPERATING CONDITIONS

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	4000 ohm	—
Transconductance	16000 μ S	—
Amplification Factor	4.5	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	6500 V	—
Maximum Screen Voltage	330 V	—
Maximum Plate Dissipation	30 W	—
Maximum Screen Dissipation	5 W	—
Maximum Cathode Current	400 mA	—
DC Plate Supply Voltage	770 V	Horizontal deflection; sections in parallel
Peak Positive Pulse Plate Voltage	6500 V	Horizontal deflection
Plate Current	100 mA	Average characteristics



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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage 6.3	42 V	Published in approved 6KN6 target datasheet entry; Section1
Heater Warm-up Time	11 seconds	Published in approved 6KN6 target datasheet entry; Section1
Plate Current – – 800 1	100 mA	Published in approved 6KN6 target datasheet entry; Section1
Grid-No.2 Current – – 50*	4 mA	Published in approved 6KN6 target datasheet entry; Section1
plate current of	1 mA	Published in approved 6KN6 target datasheet entry; Section1
plate current of 1 mA – – –	33 V	Published in approved 6KN6 target datasheet entry; Section1
DC Plate Supply Voltage	770 V	Published in approved 6KN6 target datasheet entry; Section1
Peak Positive-Pulse Plate Voltage*	6500 V	Published in approved 6KN6 target datasheet entry; Section1
Peak Negative-Pulse Plate Voltage	1500 V	Published in approved 6KN6 target datasheet entry; Section1
Grid-No.2 Voltage	220 V	Published in approved 6KN6 target datasheet entry; Section1
Peak Negative-Pulse Grid-No.1 Voltage	330 V	Published in approved 6KN6 target datasheet entry; Section1
Average Cathode Current	400 mA	Published in approved 6KN6 target datasheet entry; Section1
Peak Cathode Current	1500 mA	Published in approved 6KN6 target datasheet entry; Section1
Plate Dissipation*	30 W	Published in approved 6KN6 target datasheet entry; Section1
Grid-No.2 Input	6 W	Published in approved 6KN6 target datasheet entry; Section1
Grid-No.1-Circuit Resistance	1 MΩ	Published in approved 6KN6 target datasheet entry; Section1
# Pulse duration must not exceed 15% of one horizontal scanning cycle (	10 microseconds	Published in approved 6KN6 target datasheet entry; Section1
Heater Voltage (ac/dc) 6.3	10.5 V	Published in approved 6KN6 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current 0.7B	450 mA	Published in approved 6KN6 target datasheet entry; Section1
Heater Warm-up Time (Average)	11 seconds	Published in approved 6KN6 target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 130 5500 60	130 V	Published in approved 6KN6 target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Voltage 130 125 126	130 V	Published in approved 6KN6 target datasheet entry; Section1
-20 – 0	-20 V	Published in approved 6KN6 target datasheet entry; Section1

TUBE TINKER

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