



ELECTRONIC TUBE REFERENCE

13Z10

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

BEAMPOWER-PENTODE

Duodecar combination tube for FM radio and television receivers, integrating limiter/discriminator functions with a beam-power audio-output stage.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	12
NOMINAL HEATER	13.2 V / 450 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Beam Power	
TRANSCONDUCTANCE	0.00036 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	10 W
<i>Reference/equivalence-only sparse-source exception: gated-beam discriminator section; ratings/characteristics not reproduced.</i>	

SECTION2 Pentode	
TRANSCONDUCTANCE	0.00036 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	10 W
<i>Reference/equivalence-only sparse-source exception: beam pentode section; ratings/characteristics not reproduced.</i>	

Duodecar types used as a combined limiter, discriminator, and audio power-output tube in FM radio and television receivers. Outlines section, 8C; require duodecar 12-contact socket. Types 10Z10, and 13Z10/13J10 are identical with type 6Z10/6J10 except for 12BT heater ratings. 6Z10/6J10 10Z10 13Z10/13J10



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 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Warm-up Time	11 s	Average



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 2 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc)	13.2 volts	Published value from supplied target entry
Heater Current	0.45 ampere	Published value from supplied target entry
Heater Warm-up Time (Average)	11 seconds	Published value from supplied target entry
Plate Supply Voltage	330 volts	Published value from supplied target entry
Grid-No	330 volts	Published value from supplied target entry
Grid-No.1 Voltage, Peak positive value	60 volts	Published value from supplied target entry
Average Cathode Current	13 mA	Published value from supplied target entry
Plate Voltage	135 volts	Published value from supplied target entry
Grid-No	0 volts	Published value from supplied target entry
Grid-No	280 volts	Published value from supplied target entry

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No	75 volts	Published value from supplied target entry
Grid No	0 volts	Published value from supplied target entry
Grid-No	33	Published value from supplied target entry
Transconductance, Grid No.1 to Plate	360	Published value from supplied target entry
Transconductance, Grid No	700	Published value from supplied target entry
Average Plate Current	5	Published value from supplied target entry
Grid-No	4.5 mA	Published value from supplied target entry
Grid No	3	Published value from supplied target entry
Grid-No	275 volts	Published value from supplied target entry
Plate Dissipation	10 watts	Published value from supplied target entry
Grid-No	2 watts	Published value from supplied target entry
Plate Voltage	250 volts	Published value from supplied target entry
Grid-No	250 volts	Published value from supplied target entry
Grid-No.1 (Control-Grid) Voltage	-8 volts	Published value from supplied target entry
Peak AF Grid-No.1 Voltage	8 volts	Published value from supplied target entry
Zero-Signal Plate Current	35 mA	Published value from supplied target entry
Zero-Signal Grid-No	3 mA	Published value from supplied target entry
Plate Resistance (Approx.)	0.1 megohm	Published value from supplied target entry
Transconductance G5	0	Published value from supplied target entry
Load Resistance	5000 ohms	Published value from supplied target entry
Grid-No	1	Published value from supplied target entry

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate to Cathode, Heater, Grid No	7.5 pF	Published value from supplied target entry

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum-Signal Plate Current	39 mA	Published value from supplied target entry
Maximum-Signal Grid-No	13 mA	Published value from supplied target entry



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