



ELECTRONIC TUBE REFERENCE

6G11

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

BEAMPOWER-PENTODE

Combination sharp-cutoff pentode and beam-power pentode designed for television FM sound detection followed by Class-A audio power amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12BU	BASE PINS	12
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

12BU - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	H – Heater	CONNECTED
PIN2	B	K – Cathode	CONNECTED
PIN3	B	G1 – Control Grid	CONNECTED
PIN4	B	G3 – Suppressor Grid	CONNECTED
PIN5	–	IS – Internal Screen	CONNECTED
PIN6	B	P – Plate (Anode)	CONNECTED
PIN7	B	G2 – Screen Grid	CONNECTED
PIN8	A	G1 – Control Grid	CONNECTED
PIN9	A	G3 – Suppressor Grid	CONNECTED
PIN9	A	K – Cathode	CONNECTED
PIN10	A	G2 – Screen Grid	CONNECTED
PIN11	A	P – Plate (Anode)	CONNECTED
PIN12	–	H – Heater	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	150000 Ω
TRANSCONDUCTANCE	0.001 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1.7 W
MAXIMUM SCREEN DISSIPATION	1.1 W
MAXIMUM CATHODE CURRENT	10 mA
<i>Sharp-cutoff pentode unit.</i>	

SECTION2 Beam Power	
PLATE RESISTANCE	25000 Ω
TRANSCONDUCTANCE	0.006 S
MAXIMUM PLATE VOLTAGE	150 V
MAXIMUM SCREEN VOLTAGE	135 V
MAXIMUM PLATE DISSIPATION	6.5 W
MAXIMUM SCREEN DISSIPATION	1.8 W
MAXIMUM CATHODE CURRENT	65 mA
<i>Beam-power unit.</i>	

Combination sharp-cutoff pentode and beam-power pentode for FM sound detection and Class A power amplification.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

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Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	1.2 A	—
Plate supply voltage	150 V	PentodeUnit
Screen supply voltage	100 V	PentodeUnit
Cathode resistor	560 ohm	PentodeUnit
Plate current	1.3 mA	PentodeUnit
Screen current	2 mA	PentodeUnit

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	150000 ohm	PentodeUnit
Grid No.1 transconductance	1000 uS	PentodeUnit
Grid No.3 transconductance	400 uS	PentodeUnit

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1-to-plate capacitance	0.034 pF	PentodeUnit
Grid No.3-to-plate capacitance	2.8 pF	PentodeUnit

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Section 2 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	150 V	BeamPowerUnit

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum screen voltage	135 V	BeamPowerUnit
Maximum cathode current	65 mA	BeamPowerUnit
Plate dissipation	6.5 W	BeamPowerUnit
Screen input	1.8 W	BeamPowerUnit
Plate voltage	120 V	BeamPowerUnit;ClassA
Screen voltage	110 V	BeamPowerUnit;ClassA
Grid voltage	-8 V	BeamPowerUnit;ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.26 pF	BeamPowerUnit
Input capacitance	12 pF	BeamPowerUnit
Output capacitance	12 pF	BeamPowerUnit

TUBE TINKER

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

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