



ELECTRONIC TUBE REFERENCE

ZD17

Voltage - Pentode or Tetrode (under 100V) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

DIODE-PENTODE

Low-consumption directly heated diode-pentode for battery receiver detector and amplifier service, using a 1.4 V, 50 mA filament to minimize portable-equipment drain.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B7G	BASE PINS	7
NOMINAL HEATER	1.4 V / 50 mA	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Pentode

PLATE RESISTANCE	600000 Ω
TRANSCONDUCTANCE	0.00063 S
MAXIMUM PLATE VOLTAGE	90 V
MAXIMUM SCREEN VOLTAGE	90 V
MAXIMUM CATHODE CURRENT	3 mA

Pentode system. Pentode ra/gm are published at $V_a=V_{g2}=67.5$ V, $V_{g1}=0$. $\mu=14$ is published for triode connection and retained here plus connection-specific parameters.

SECTION2 Diode

No fixed ratings recorded.

Diode system sharing the directly heated filament/cathode with the pentode. No separate diode voltage/current maximum is published on the sheet; diode-related capacitances are retained as parameters.

Miniature 1.4 V directly heated diode-pentode with a shared filament/cathode, intended for low-voltage pentode amplification with a separate diode section.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1955 Marconi

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

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Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament Current Approximate	50 mA	At nominal 1.4V
Pentode Plate Resistance	600000 ohm	PentodeConnection;Va=67.5V;Vg2=67.5V;Vg1=0
Pentode Transconductance	0.00063 A/V	PentodeConnection;Va=67.5V;Vg2=67.5V;Vg1=0
Triode Amplification Factor	14	TriodeConnection;Va=67.5V;Vg1=0
Triode Plate Resistance	17500 ohm	TriodeConnection;Va=67.5V;Vg1=0
Triode Transconductance	0.0008 A/V	TriodeConnection;Va=67.5V;Vg1=0

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mains Filament Voltage Recommended	1.3 V	MainsSupply
Mains Filament Current Recommended	47.5 mA	MainsSupply
Triode Plate Voltage Maximum	90 V	TriodeConnection
Triode Cathode Current Maximum	3 mA	TriodeConnection
Typical Anode Voltage	45 V	PentodeConnection
Typical Screen Voltage	45 V	PentodeConnection
Typical Voltage Gain	30 ratio	PentodeConnection
Typical Anode Voltage	67.5 V	PentodeConnection
Typical Screen Voltage	67.5 V	PentodeConnection
Typical Voltage Gain	40 ratio	PentodeConnection
Typical Anode Voltage	90 V	PentodeConnection
Typical Screen Voltage	90 V	PentodeConnection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Voltage Gain	50 ratio	PentodeConnection
Grid1-Cathode Resistance	10 Mohm	PentodeConnection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1-All Capacitance	2.2 pF	—
Anode-All Capacitance	2.4 pF	—
Grid1-Anode Capacitance	0.2 pF	—

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Section 2 · Diode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DiodeAnode-Grid1 Capacitance	0.5 pF	—
DiodeAnode-PentodeAnode Capacitance	0.45 pF	—
DiodeAnode-Filament Capacitance	1.4 pF	—

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