

ELECTRONIC TUBE REFERENCE

6GK6

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Power pentode designed for Class-A and push-pull Class-AB/B audio-frequency output service, also applicable to video power amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9GK	BASE PINS	9
NOMINAL HEATER	6.3 V / 760 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9GK - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	38000 Ω
TRANSCONDUCTANCE	0.0113 S
AMPLIFICATION FACTOR	19
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	13.2 W
MAXIMUM SCREEN DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	65 mA
<i>Average screen-dissipation rating promoted; 4 W peak screen dissipation preserved as parameter.</i>	

Power pentode for Class A and push-pull Class AB/B audio-frequency output service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	760 mA	—
Plate voltage	3304 V	Typical operating conditions
Screen voltage	330 V	Typical operating conditions

SOURCE OPERATING CONDITIONS

1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	330 V	—
Maximum screen-grid voltage	330 V	—
Maximum plate dissipation	13.2 W	—
Maximum screen-grid dissipation	2 W	—
Maximum cathode current	65 mA	—
Heater voltage	6.3 V	—
Heater current	760 mA	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 2 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.14 pF	—
Input capacitance	10 pF	—
Output capacitance	7 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage maximum	605 V	—
Screen supply voltage maximum	605 V	—
Peak screen dissipation	4 W	—
Plate voltage	250 V	ClassA
Screen voltage	250 V	ClassA
Control-grid voltage	-7.3 V	ClassA
Cathode bias resistor	135 ohm	ClassA
Zero-signal plate current	48 mA	ClassA
Zero-signal screen current	5.5 mA	ClassA
Load resistance	5200 ohm	ClassA
Power output	5.7 W	ClassA
Total harmonic distortion	10 %	ClassA
Plate-to-plate load resistance	8000 ohm	PushPull;TwoTubes;ClassAB
Power output	17 W	PushPull;TwoTubes;ClassAB;300V



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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PeakScreenDissipation	4 W	—
Typical Plate Voltage	250 V	ClassA
Typical Screen Voltage	250 V	ClassA
Maximum Signal Power Output	5.7 W	ClassA
Total Harmonic Distortion	10 %	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid2ToGrid1AmplificationFactor	19	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 5 of 7

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

1971 RCA HB3 BINDER 5 OF 7

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	760 mA	—
Plate voltage	250 V	ClassA
Screen voltage	250 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	48 mA	ClassA
Power output	5.7 W	ClassA
Maximum plate voltage	330 V	—
Maximum screen voltage	330 V	—
Maximum cathode current	65 mA	—
Plate dissipation	13.2 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	38000 ohm	ClassA
Transconductance	11300 uS	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.14 pF	—



SOURCE DATA APPENDIX

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 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1-to-plate capacitance	0.14 pF	Maximum

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	250 V	ClassA
Screen-grid supply voltage	250 V	ClassA
Cathode-bias resistor	135 ohm	ClassA
Zero-signal plate current	48 mA	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum-signal plate current	50.6 mA	ClassA
Maximum-signal screen-grid current	10 mA	ClassA
Effective load resistance	5200 ohm	ClassA
Maximum-signal power output	5.7 W	ClassA
Power output	17 W	ClassAB PushPull TwoTubes