



ELECTRONIC TUBE REFERENCE

3B4

Power - Pentode Single (NOT beam) (under 10W) electronic tube

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
PENTODE

Directly heated instant-start beam-power pentode for portable or mobile RF amplification, oscillation, and frequency multiplication, capable of Class-C output around 100 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7CY	BASE PINS	7
NOMINAL HEATER	1.25 V / 330 mA	PARALLEL HEATER	1.25 V / 330 mA
HEATING	Direct	SERIES OPERATION	Capable
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7CY - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – G2	A	G2 – Screen Grid	CONNECTED
PIN2 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN2 – FCT	–	FCT – Filament Center Tap	CONNECTED
PIN3 – G1	A	G1 – Control Grid	CONNECTED
PIN4 – F	–	F – Filament	CONNECTED
PIN5 – F	–	F – Filament	CONNECTED
PIN6 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN6 – FCT	–	FCT – Filament Center Tap	CONNECTED
PIN7 – P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
TRANSCONDUCTANCE	0.0017 S
AMPLIFICATION FACTOR	4.1
MAXIMUM PLATE VOLTAGE	150 V
MAXIMUM SCREEN VOLTAGE	135 V
MAXIMUM PLATE DISSIPATION	3 W
MAXIMUM CATHODE CURRENT	25 mA
<i>Published ratings and characteristics promoted where clearly legible in the approved source.</i>	

Directly heated power pentode for RF amplification, oscillation and frequency multiplication.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1944 Hytron

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

1944 HYTRON

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Frequency	100 MHz	Full ratings

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	150 V	Published handbook rating
Maximum screen voltage	135 V	Published handbook rating
Plate voltage	150 V	ClassA
Screen voltage	135 V	ClassA
Control-grid bias	38 V	ClassA
Plate current	25 mA	ClassA
Screen current	6.2 mA	ClassA
Power output	1.25 W	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	1.25 V	Published heater/filament rating
Heater/filament current	330 mA	Published heater/filament rating



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Raytheon Special Purpose Tubes

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

195X RAYTHEON SPECIAL PURPOSE TUBES

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	150 V	RFPowerAmplifier
Control-grid voltage	-38 V	RFPowerAmplifier
Screen voltage	135 V	RFPowerAmplifier
Plate current	25 mA	RFPowerAmplifier
Screen current	6.2 mA	RFPowerAmplifier
Power output	1.25 W	100MHz



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 Mazda Belvu

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

1968 MAZDA BELVU

Section 1 · Pentode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	RF_Amplifier_Oscillator_FrequencyMultiplier text	—