



ELECTRONIC TUBE REFERENCE

6146A

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Improved 6146-family beam-power transmitting tube for RF amplification, oscillation, frequency multiplication, and communications transmitter output service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B8-150	BASE PINS	8
NOMINAL HEATER	6.3 V / 1.25 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
TRANSCONDUCTANCE	0.007 S
AMPLIFICATION FACTOR	4.5
MAXIMUM PLATE VOLTAGE	750 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	25 W
MAXIMUM SCREEN DISSIPATION	3 W
MAXIMUM CATHODE CURRENT	135 mA
<i>Published ratings and characteristics promoted where clearly applicable; additional published values retained as parameters.</i>	

RF transmitting beam power tube for Class-C and linear RF power-amplifier service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1940 RCA

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

1940 RCA

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	6.3 V	Published nominal value
Heater or filament current	1.25 A	Published nominal value
Transconductance	7000 μ S	Published operating characteristic
Maximum frequency with reduced input	175 MHz	Published

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	25 W	Published maximum rating
Maximum CW input	90 W	ICAS; up to 60 MHz
Application	RF amplifier/oscillator; AF amplifier/modulator	Published



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Sylvania

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

1950 SYLVANIA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	1.25 A	—
OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MaximumOperatingFrequency	175 MHz	—
Power Output	70 W	ClassC;ICAS



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1968 General Electric Co

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AverageTransconductance	7000 uS	PlateVoltage=200V; ScreenVoltage=200V
Average Plate Current	100 mA	PlateVoltage=200V; ScreenVoltage=200V
st rree s rr e s s ras ee e e s re s searaan s aea e s rensas	200 V	—
Ef	6.3 V	—
OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The	6146 C	The 6146-A is a beam pentode designed for use as a radio-frequency power amplifier and oscillator or as an
npul	13.5 C	The 6146-A is a beam pentode designed for use as a radio-frequency power amplifier and oscillator or as an

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
L6 T T ST	8.5 C	The 6146-A is a beam pentode designed for use as a radio-frequency power amplifier and oscillator or as an
Bulb Temperature at Hottest Point	2200 C	The 6146-A is a beam pentode designed for use as a radio-frequency power amplifier and oscillator or as an
xz Pin	1 C	The 6146-A is a beam pentode designed for use as a radio-frequency power amplifier and oscillator or as an
Pin	4 C	The 6146-A is a beam pentode designed for use as a radio-frequency power amplifier and oscillator or as an
Pin	6 C	The 6146-A is a beam pentode designed for use as a radio-frequency power amplifier and oscillator or as an
Pin	7 C	The 6146-A is a beam pentode designed for use as a radio-frequency power amplifier and oscillator or as an
Grid Number	1 C	—
Grid-Number	1 C	AUDIO-FREQUENCY POWER AMPLIFIER AND MODULATOR CLASS AB,
Plate Input	675 W	—
Plate Dissipation	16.7 W	—
Grid-Number	1 C	—
number	1 C	—
t Obtained from grid number	1 C	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	1.25 A	Nominal
Maximum Plate Voltage	750 V	—
Maximum Screen Voltage	250 V	—
Maximum Plate Dissipation	25 W	—
Maximum Screen Dissipation	3 W	—
Maximum Cathode Current	135 mA	—
RFOutputPower	82 W	TwoTubes; ClassC; 600 V plate
MaximumPlateVoltageICAS	750 V	ICAS

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	7000 μ S	Typical