



ELECTRONIC TUBE REFERENCE

6417

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Miniature beam-power transmitting tube for RF amplification, oscillation, and frequency multiplication, electrically similar to 5763 except for its 12.6 V heater.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	12.6 V / 375 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
TRANSCONDUCTANCE	0.0051 S
MAXIMUM PLATE VOLTAGE	350 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	13.5 W
MAXIMUM SCREEN DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	50 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
<i>Electrical ratings inherited from 5763 per supplied 6417 sheet; heater rating replaced by 12.6 V / 0.375 A.</i>	

The RCA 6417 is a miniature beam power tube for RF amplification, oscillation, and frequency multiplication; it is electrically like the 5763 except for heater rating.



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Frequency	175 MHz	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	RFPower_Oscillator_FrequencyMultiplier text	—



SOURCE OPERATING CONDITIONS

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1956 RCA Transmitting Tubes

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

1956 RCA TRANSMITTING TUBES

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Full-Input Frequency	50 MHz	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Dissipation CCS	12 W	—
Plate Dissipation ICAS	13.5 W	—



SOURCE OPERATING CONDITIONS

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1960 RCA Industrial and Communications Types

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

1960 RCA INDUSTRIAL AND COMMUNICATIONS TYPES

Section 1 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	12.6 V	—
Heater Current	375 mA	—
Reference Type	5763	IdenticalExcept12.6VHeater



SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 6 of 7

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1971 RCA HB3 BINDER 6 OF 7

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage nominal	12.6 V	WholeTube
Heater/filament current	375 mA	WholeTube
Maximum DC plate voltage	350 V	ClassCTelegraphyICAS
Maximum screen voltage	250 V	ClassC
Maximum DC plate current	50 mA	ClassC
Maximum plate dissipation	13.5 W	ClassCTelegraphyICAS
Maximum screen input	2 W	ClassC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	350 V	ClassCUpTo30MHz
Screen voltage	250 V	ClassCUpTo30MHz
Plate current	48.5 mA	ClassCUpTo30MHz
Screen current	6.2 mA	ClassCUpTo30MHz
Driving power	0.1 W	ClassCUpTo30MHz
Useful power output	12 W	ClassCUpTo30MHz

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-1-to-plate capacitance maximum	0.3 pF	WholeTube
Input capacitance	9.5 pF	WholeTube
Output capacitance	4.5 pF	WholeTube
Transconductance	5100 μS	TypicalOperation

TUBE TINKER

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