



ELECTRONIC TUBE REFERENCE

4616V1

Power - Beam (NOT sweep) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

RCA high-power beam-power transmitting tube for RF, pulse, modulation, and related transmitter service, with 30000-watt maximum plate dissipation and application-specific operating limits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	0.95 V / 495 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Beam Power	
AMPLIFICATION FACTOR	7
MAXIMUM PLATE VOLTAGE	25000 V
MAXIMUM SCREEN VOLTAGE	2200 V
MAXIMUM PLATE DISSIPATION	30000 W
MAXIMUM CATHODE CURRENT	2.5 A
<i>Electrical characteristics are identical to 4616; 4616V1 differs only by omission of the water separator.</i>	

High-power beam power tube for RF, pulse, modulation, or transmitting service. The RCA source was reviewed for heater/filament data, maximum ratings, RF and pulse operating conditions, capacitances, cooling requirements, and application-specific limits.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

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Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	25000 V	PromotedValue
Maximum screen-grid voltage	2200 V	PromotedValue
Maximum plate dissipation	30000 W	PromotedValue
Maximum cathode/plate current	2.5 A	PromotedValue

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mu / amplification factor	7	PromotedValue
Heater/filament voltage	0.95 V	Nominal operating value
Heater/filament current	495 A	Nominal operating value
,.~, – published value 1	2	Pulse
,.~, – published value 2	275	Pulse
PULSE LENGTH TO 2500 MICROSECONDS	2500 us	Pulse
For RF-Pulse Power Amplifier Frequencies from 195 to 600 MNz – published value 1	195 A	Pulse
For RF-Pulse Power Amplifier Frequencies from 195 to 600 MNz – published value 2	600 A	Pulse