



ELECTRONIC TUBE REFERENCE

3D21A

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

CBS-Hytron 3D21A high-vacuum blocking-oscillator and pulse-modulator tube with 6.3/12.6 V series-parallel heater, 3500 V plate rating and 7-21 kW typical pulse output.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	12.6 V / 850 mA	PARALLEL HEATER	6.3 V / 1.7 A
HEATING	Indirect	SERIES OPERATION	Capable
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
TRANSCONDUCTANCE	0.00055 S
MAXIMUM PLATE VOLTAGE	3500 V
MAXIMUM SCREEN VOLTAGE	850 V
MAXIMUM PLATE DISSIPATION	15 W
MAXIMUM SCREEN DISSIPATION	3 W
MAXIMUM GRID DISSIPATION	0.5 W
CBS-Hytron 1957: maximum plate 3500 V (5000 V transient peak), grid2 850 V, grid1 instantaneous -500 to +220 V, plate dissipation 15 W, grid2 dissipation 3 W, grid1 dissipation 0.5 W. At Va 600 V, Vg2 300 V, Vg1 -30 V, Ia 30 mA, Ig2 2.5 mA: gm 550 μmhos = 0.00055 A/V. Peak heater-cathode 150 V; cathode preheat $\geq$30 s. Pulse operation Va 3500/2500/1500 V, Vg2 800 V, Vg1 -150 V, load 450/305/160 Ω, output 21/14/7 kW. Pulse nominal 10 μs and $\leq$12 μs total per 240 μs. Conditional 4500 V DC plate possible with Vg2 $\leq$400 V, resistive load and no transients. Beam construction unverified; existing classification retained.	

Beam tetrode for blocking oscillator, pulse modulator, deflection amplifier, regulator, and series-valve service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Brimar Radio Valve No 7

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

1958 BRIMAR RADIO VALVE NO 7

Section 1 · Beam Power

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Blocking oscillator / pulse modulator	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pulse length maximum	10 us	Pulse
Peak pulse power output	21 kW	Pulse



SOURCE OPERATING CONDITIONS

1960 CBS Hytron

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

1960 CBS HYTRON

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pulse Power	20000 W	PulseModulator

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