



ELECTRONIC TUBE REFERENCE

4C27

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

National Union 4C27 indirectly heated coaxial VHF pulsed power oscillator triode for 200–600 MHz, rated for 50 kW peak RF output and requiring forced-air cooling.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6 V / 6.5 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
AMPLIFICATION FACTOR	23
MAXIMUM PLATE VOLTAGE	8000 V
MAXIMUM PLATE DISSIPATION	150 W
National Union 4C27 coaxial VHF pulsed power triode, RMA 1946. Heater 6.0 V $\pm 5\%$, 6.5 A, indirectly heated oxide cathode. Maximum instantaneous PULSED anode 8000 V (not continuous DC), anode dissipation 150 W, negative grid voltage magnitude 1000 V. μ 23; gm and rp not specified. Typical 215 MHz Class C pulsed oscillator: anode instantaneous 8 kV, repetition 400 Hz, pulse width 2 μs, peak RF power 50 kW; 200–600 MHz intended. Capacitances Cgp 8 pF, Cgk 11 pF, Cpk 2.25 pF. Forced air 6 CFM anode radiator, 1 CFM grid seal/lead.	

VHF coaxial triode for pulsed oscillator service in roughly the 200–600 MHz range.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 National Union

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

1938 NATIONAL UNION

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
as a pulsed V.H.F. oscillator in the	200 mc	Published source value; see source line context.
rated, one tube will deliver	50 kw	Published source value; see source line context.
Heater Voltage	8 Volts	Published source value; see source line context.
Grid Voltage	-1000 Volts	Published source value; see source line context.
Anode Voltage (Instantaneous)	8000 Volts	Published source value; see source line context.
Anode Dissipation	150 Watts	Published source value; see source line context.
Length (less heater leads)	3 inches	Published source value; see source line context.
Length (including heater leads)	5 inches	Published source value; see source line context.
Width	2 inches	Published source value; see source line context.
Power Output	50 kw	Published source value; see source line context.

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	8 uuf	Published source value; see source line context.
Plate to Cathode	2.25 uuf	Published source value; see source line context.

TUBE TINKER

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