

NEW NATIONAL UNION ELECTRON TUBE DATA

N.U. - 5851

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RUGGEDIZED R. F. POWER OUTPUT BEAM PENTODE.

APPLICATION:

The NU-5851 is a T-3 subminiature beam pentode designed for rugged applications such as encountered in the military service. It is designed for use in Class A, Class C and is tested as a frequency doubler at an output frequency of 400 mc. It has an oxide coated filamentary cathode which is center-tapped permitting operation at either 1.25 volts at 110 ma or 2.5 volts at 55 ma. The tube leads may either be soldered into a circuit or cut for use in a Cinch socket #8329.

RATINGS:

Filament Voltage $\pm 10\%$	1.25/2.5 volts d.c.
Maximum Plate Voltage	180 volts
Maximum Screen Voltage	135 volts
Maximum Grid Voltage	-80 volts
Maximum Plate Dissipation	1.5 watts
Maximum Screen Dissipation	0.3 watts
Maximum Cathode Current	12 ma
Maximum Altitude	60,000 feet
Maximum Impact	500 g
Maximum Ambient Temperature	200° C

INTERELECTRODE CAPACITIES:

	UNSHIELDED	SHIELDED
Grid to Plate	0.06 μf	0.055 μf
Input	2.5 μf	2.5 μf
Output	2.15 μf	3.0 μf

TYPICAL OPERATING CONDITIONS: (Class A Amplifier)

Filament Voltage	1.25/2.5 volts
Filament Current	110/55 ma
Plate Voltage	125 volts
Screen Voltage	125 volts
Grid Voltage	-7.5 volts
Plate Current	5.5 ma
Screen Current	0.9 ma
Transconductance	1600 μmhos
Plate Resistance	175,000 ohms

650 milliwatts output at 10% total harmonic distortion is obtained when $E_b = 180$ V, $E_{c2} = 135$ V and $E_{c1} = -7$ V.

DOUBLER OPERATION AT 400 MC OUTPUT FREQUENCY:

Filament Voltage	1.25/2.5 volts
Filament Current	110/55 ma
Plate Voltage	125 volts
Screen Voltage	125 volts
Grid Resistance	350,000 ohms
Plate Current	8.0 ma
Screen Current	2.0 ma
Power Output	120 mw

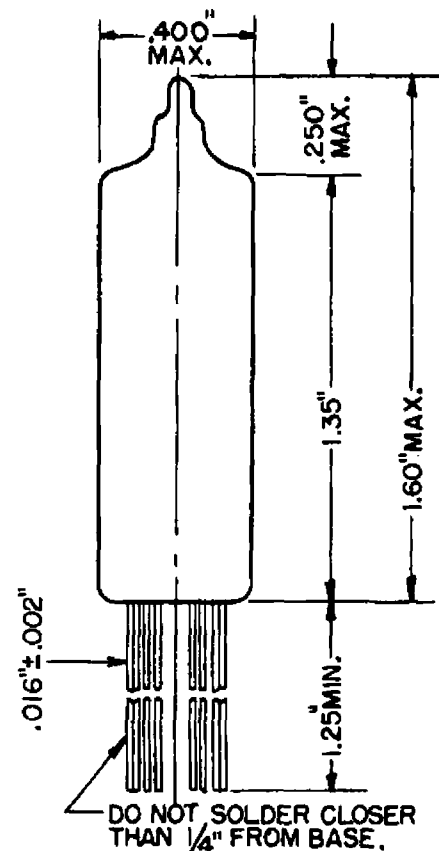
PHYSICAL SPECIFICATIONS

Style.....	Sub Miniature
Bulb.....	T-3
Base.....	Submin. Button 8-Pin
Mounting Position.....	Any

BASE PIN CONNECTIONS

Pin 1 - Fil -
Pin 2 - NC
Pin 3 - P
Pin 4 - NC
Pin 5 - Fil CT and G ₃
Pin 6 - G ₂
Pin 7 - Fil +
Pin 8 - G ₁

RMA Basing - 6CL-0-0



LEADS MAY BE CUT TO .200" FOR
USE IN CINCH SOCKET #8329

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Research Division

ORANGE NATIONAL UNION RADIO CORPORATION NEW JERSEY