from RMA release #894, Aug. 15, 1951

NATIONAL UNION ELECTRON TUBE

NEW DATA

N.U. - 5851

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.

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

RATINGS:

Filament Voltage ±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	0.055	μμf
Input	2.5	2.5	μμf
Output	2.15	3.0	μμf

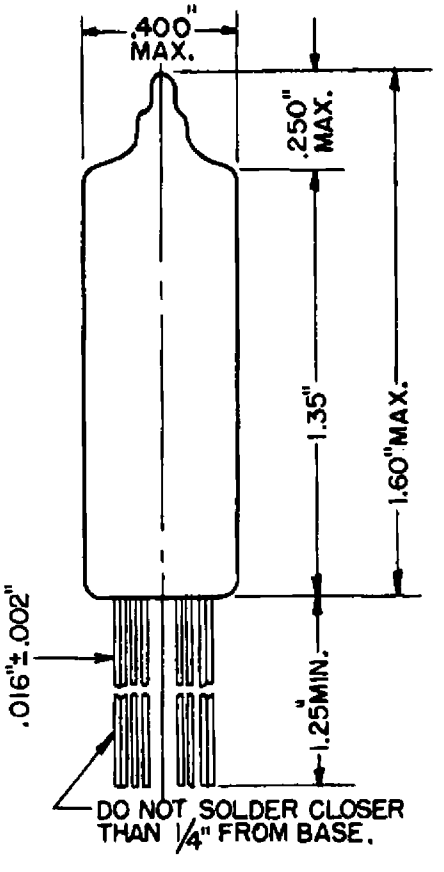
TYPICAL OPERATING CONDITIONS: (Class A Amplifier)

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_{c_2} = 135 V and E_{c_1} = -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



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